

Figure 1

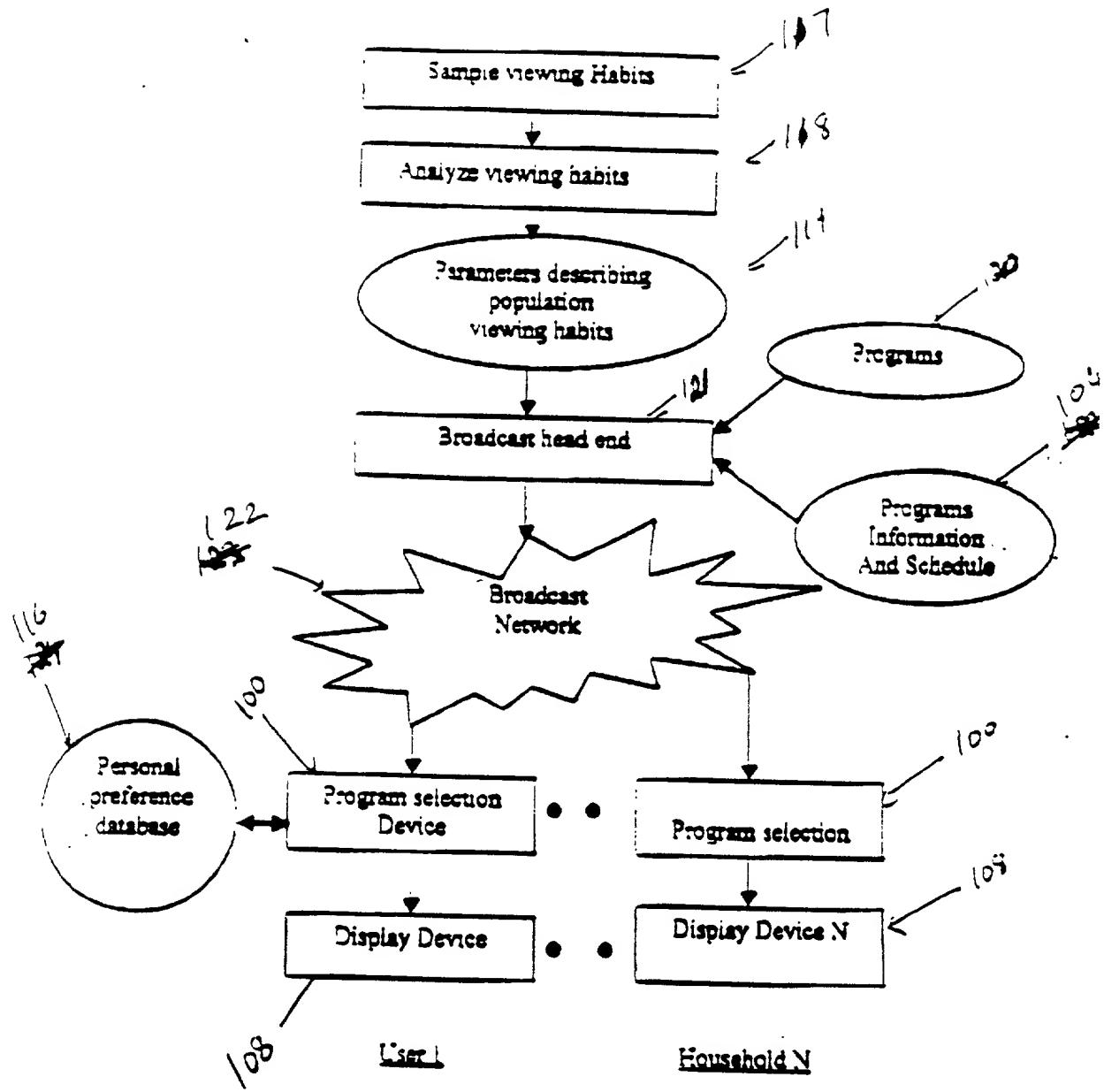


Figure 2

Examples of Program Information

Title = Seinfeld
Program Type = Sitcom
Category = Comedy
Actors = (Actor1 , Actor2)

Title = US Debt Report
Program Type = News article
Category = US Govt. Financial
People Mentioned = (Bill Clinton,
Alan Greenspan)

Example 1

124

Example 2

125

Figure 3

Examples for traits

Movie
Adventure
Sports
Mad About You
dynamic trait 1
Dynamic trait 2
NBC NEWS
FRIDAY Movie
Premier Mad About You

126

Examples for Liking for viewer N

Movie = 14
Adventure = 3
Sports = 0.3
Mad About You = 5
dynamic trait 1 = 3
Dynamic trait 2 = 5
NBC NEWS = 13
FRIDAY Movie = 18
Premier Mad About You = 15

127

Figure 4

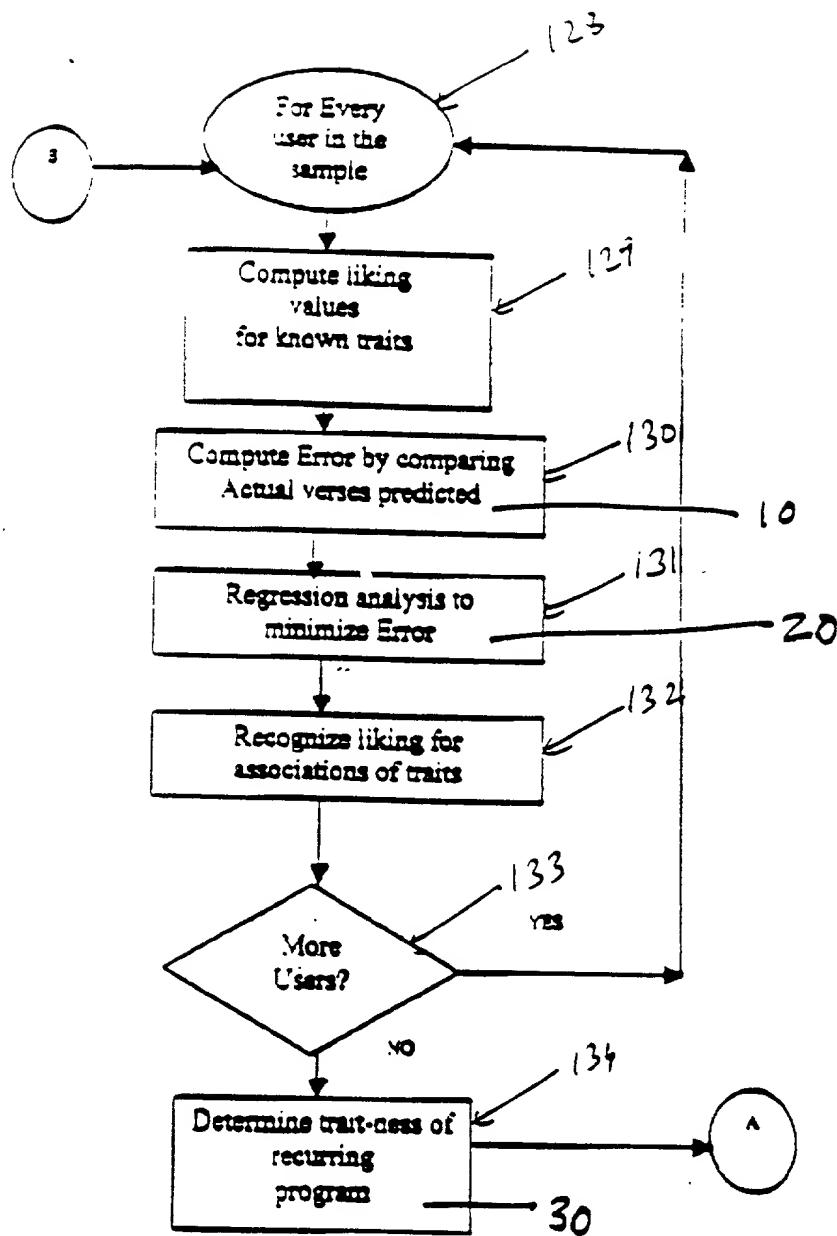


Figure 5(a)

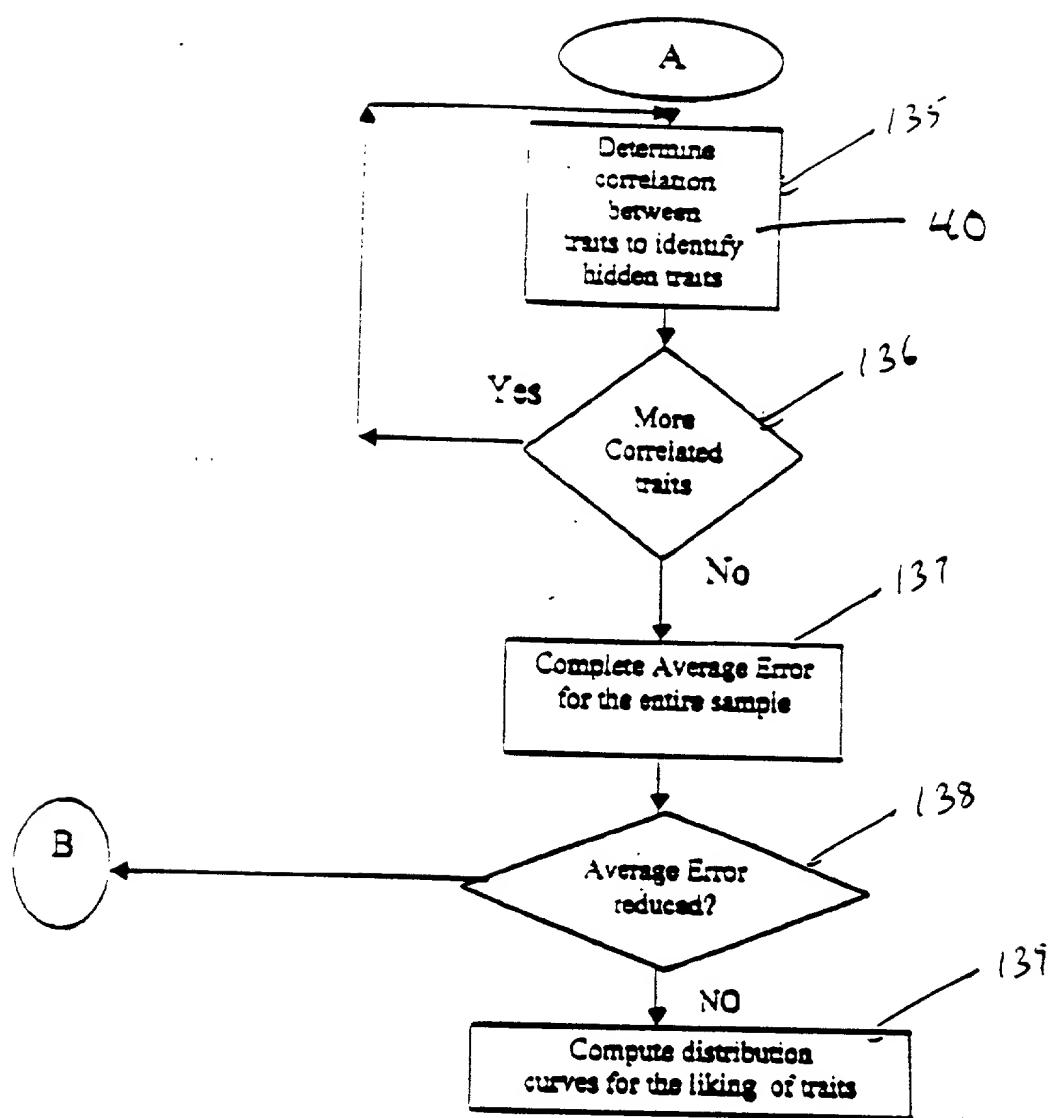


Figure 5 (b)

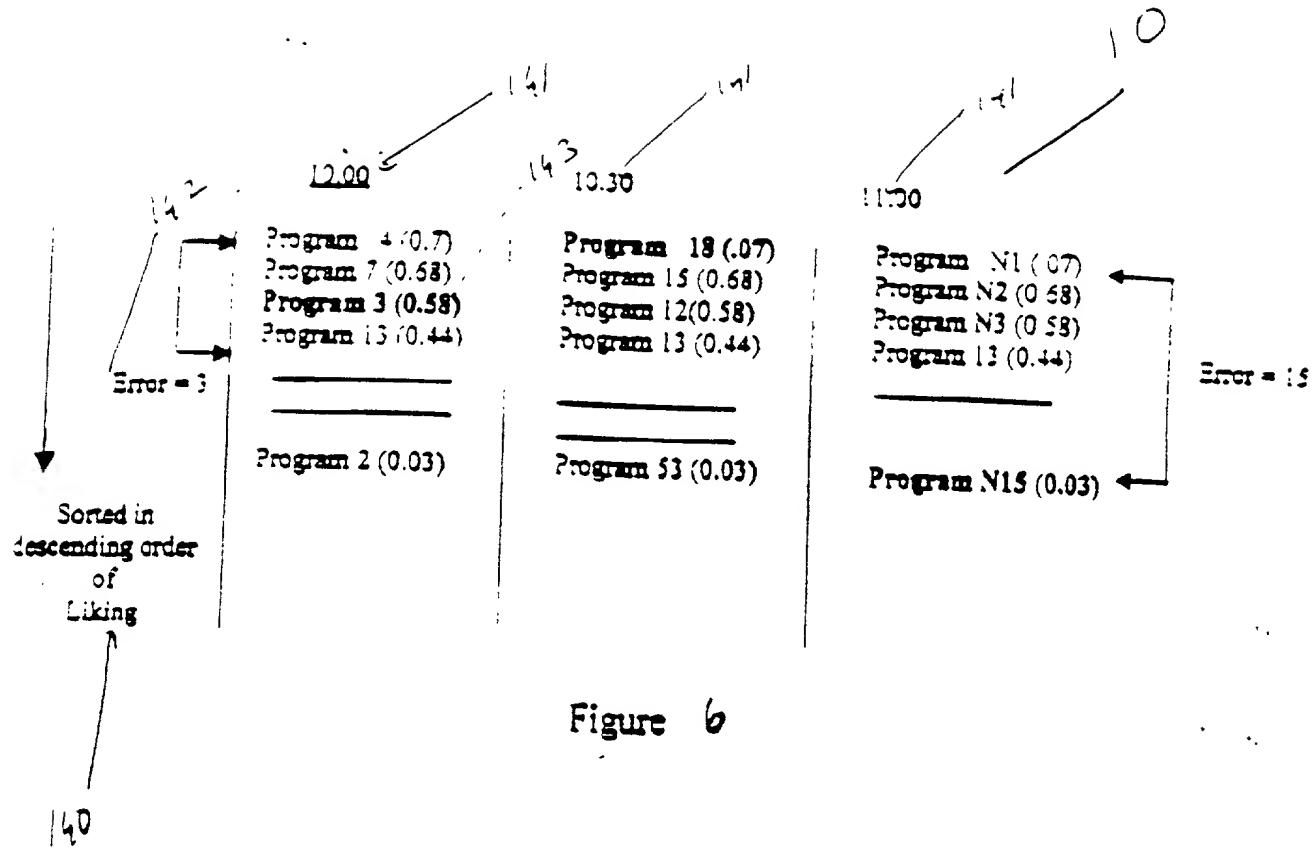


Figure 6

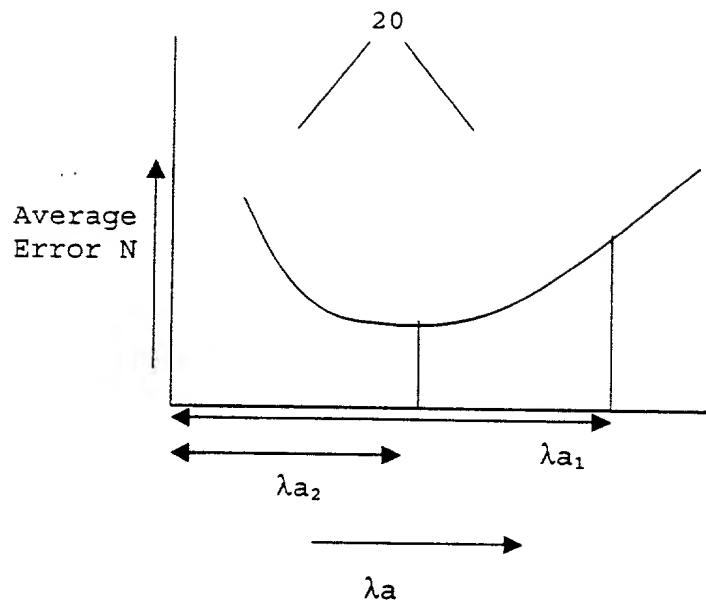
Figure 7

Current Liking Value

$$\begin{aligned}\lambda a_1 &= 2 \\ \lambda b_1 &= 5 \\ \lambda c_1 &= -3 \\ \lambda d_1 &= 0\end{aligned}$$

Next Liking Value

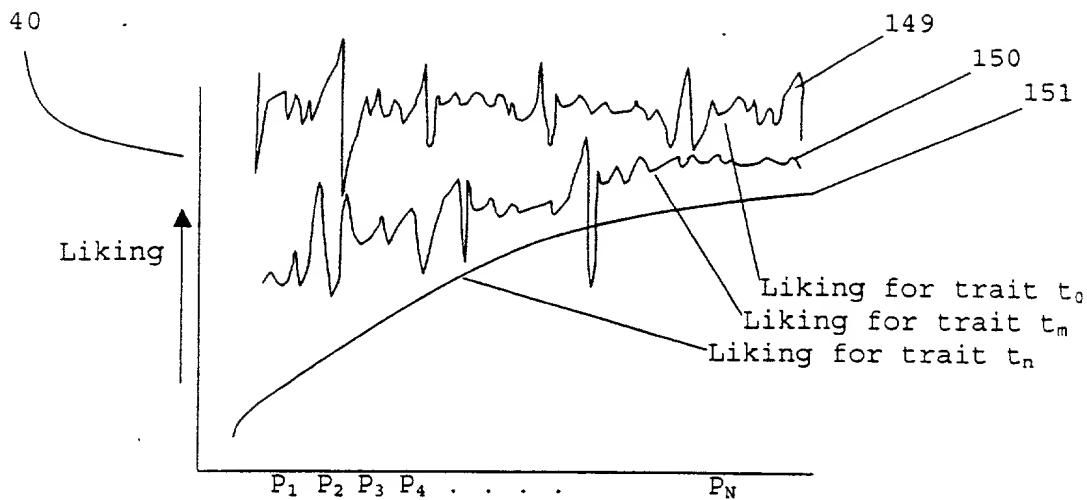
$$\begin{aligned}\lambda a_2 &= 1.5 \\ \lambda a_1 &= 5 \\ \lambda a_1 &= -3 \\ \lambda a_1 &= 0\end{aligned}$$



$$\begin{aligned}(\lambda b &= \lambda b_1 \\ \lambda c &= \lambda c_1 \\ \lambda d &= \lambda d_1\end{aligned}$$

.)

Figure 8



t_m and t_n are correlated

and t_m can be expressed as $t_m = t_x + t_{m'}$
 t_n can be expressed as $t_n = a_x t_x + t_{n'}$

Computing Traitness of a trait is a program

30

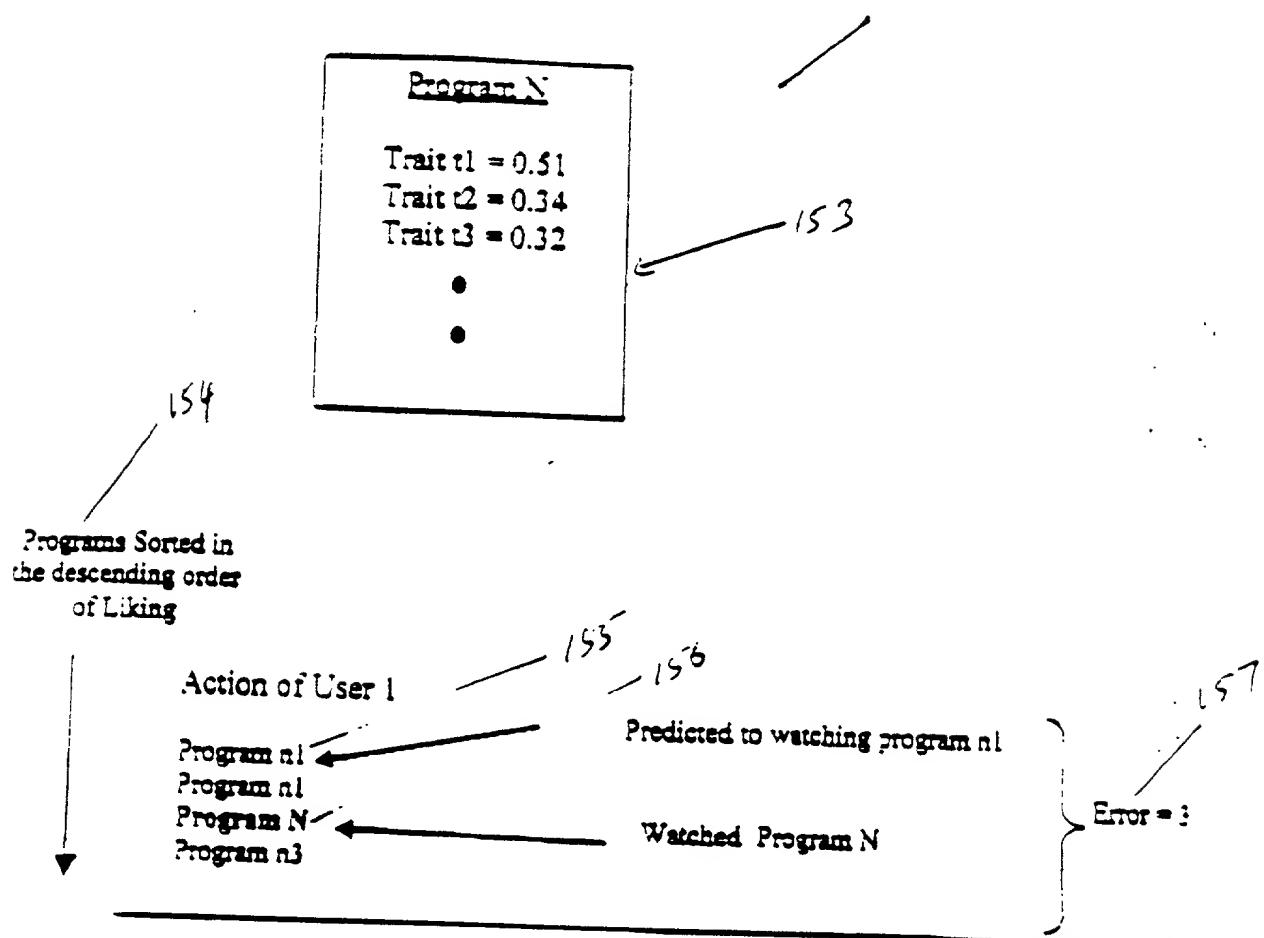


Figure 9(a)

Computing Traitness of a trait in a program

3C

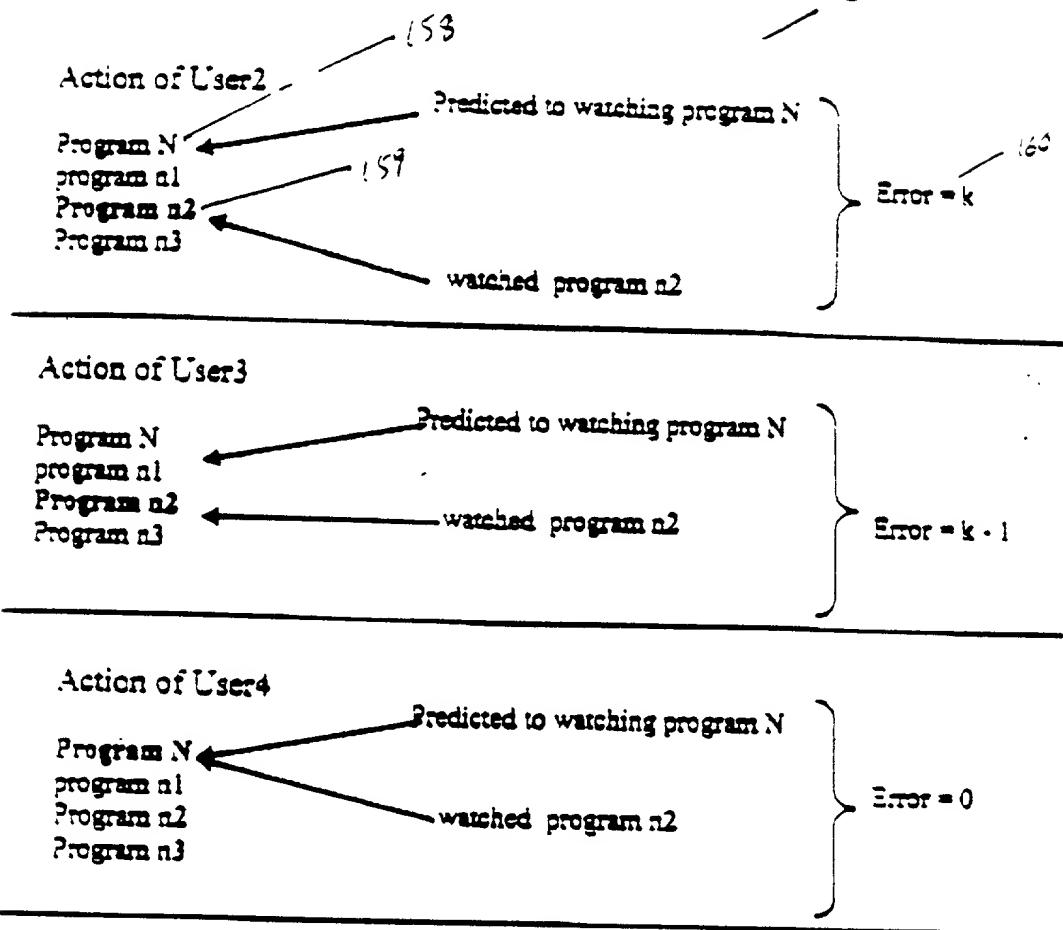
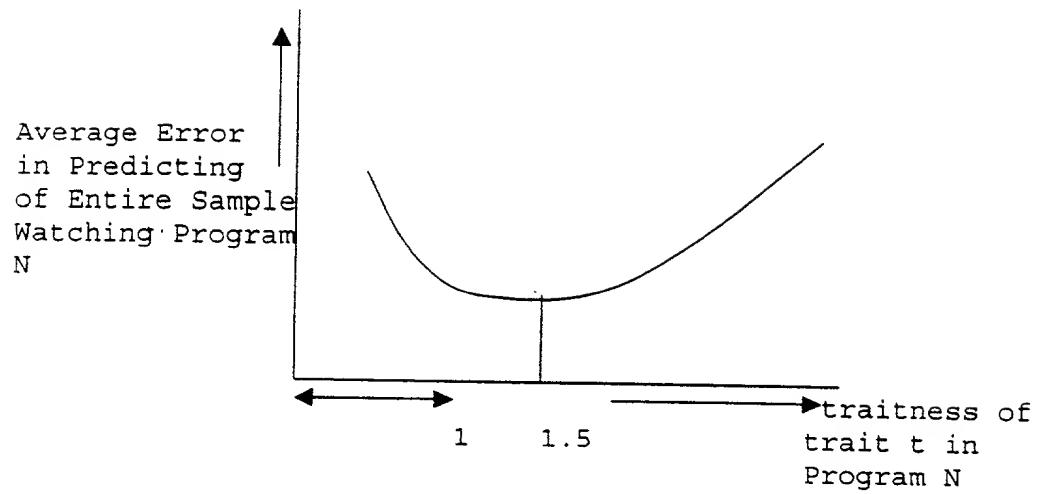


Figure 9(b)

Figure 9(c)



Optimal value of traitness

e.g. comedy-ness in Seinfeld = 1.5
comedy-ness in Frasier = 0.89

Example for Liking Distribution Record format

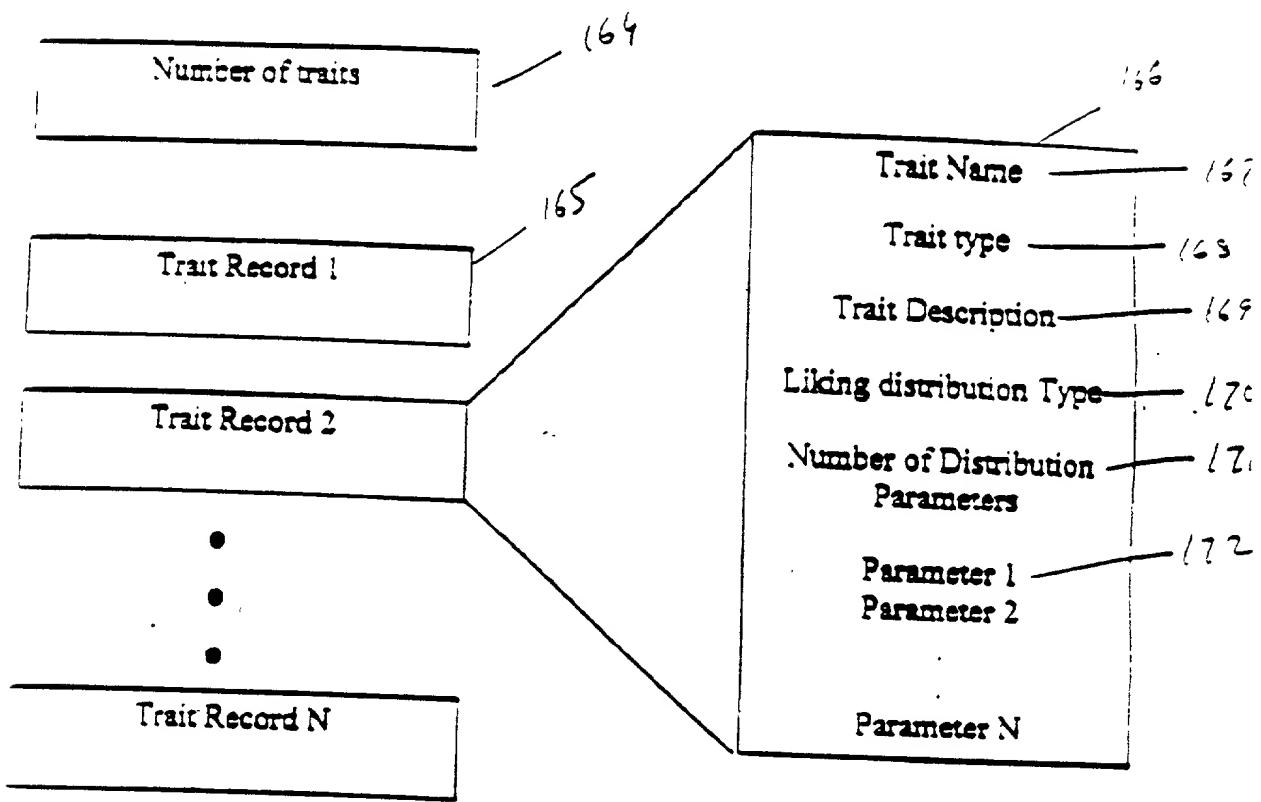


Figure 10

Some Sample Values For Fields in trait Record

Trait type

Static,
dynamic
Association
Generated

Trait Description

(NBC, "NEWS"),
SUBSTRING("CIA") IN DESC,
TITLE

Distribution

Normal
Exponential
Defined type 1
Defined type 2

Distribution Parameters

Mean = 13, Deviation = 2

Figure 11

Example for Traitness of recurring Programs

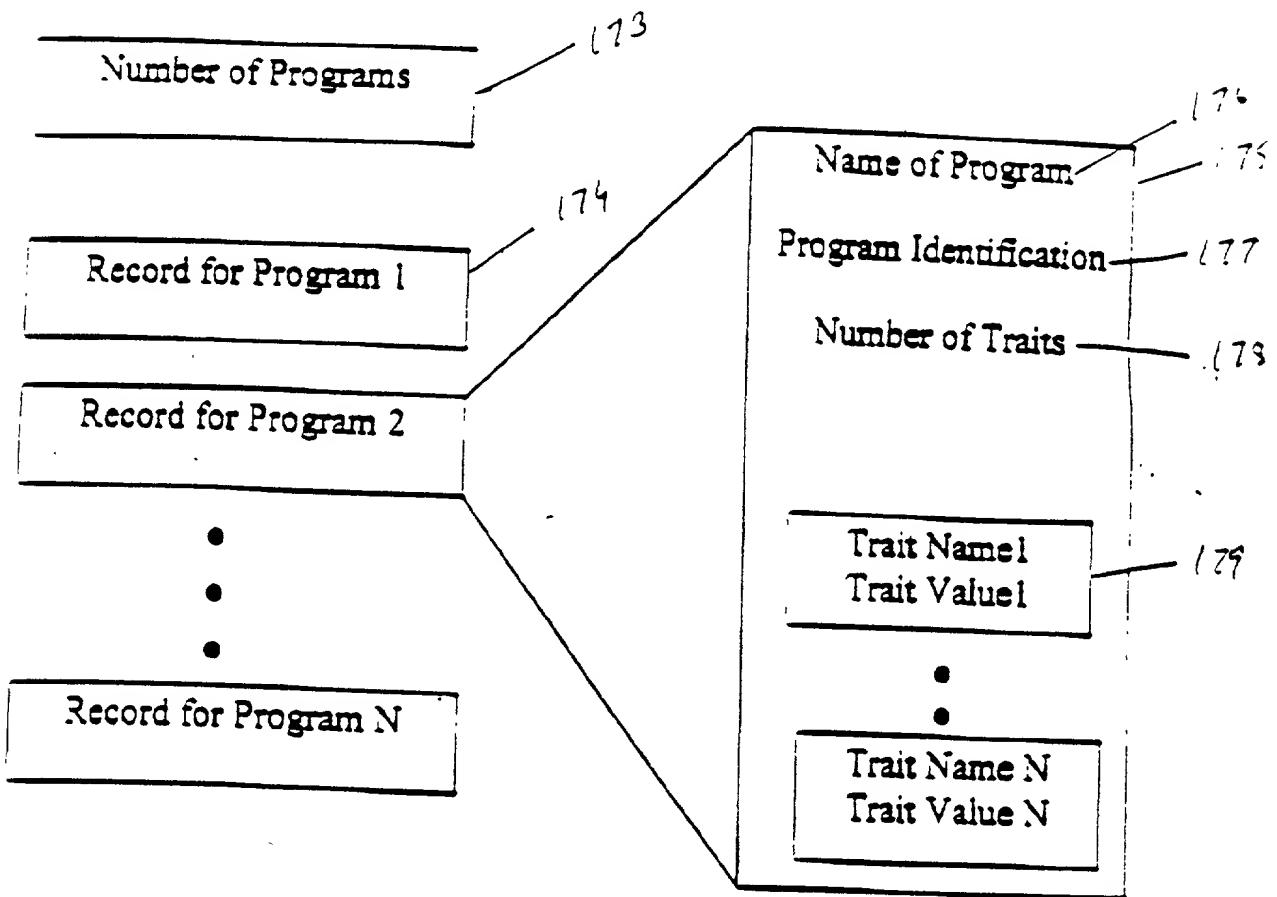


Figure 12

Example For Broadcasting traitness as a part of EPG Data

Program Info

Seinfeld,
NBC ,
Comedy = 0.07
sitcom ,
Dynamic trait 1 = 0.1

•

•

Actor = Seinfeld

Figure 13

Example for Selection Record

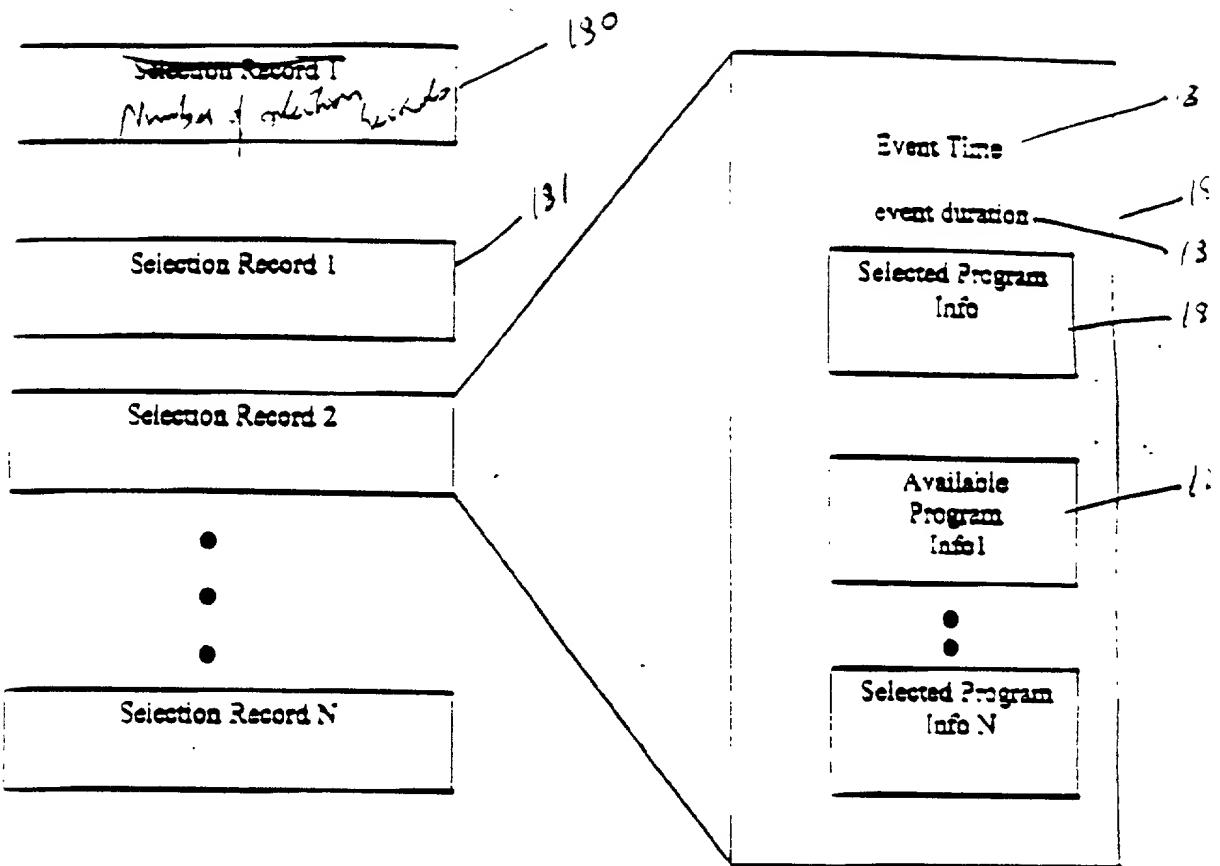


Figure 14

Generation of User Selection History

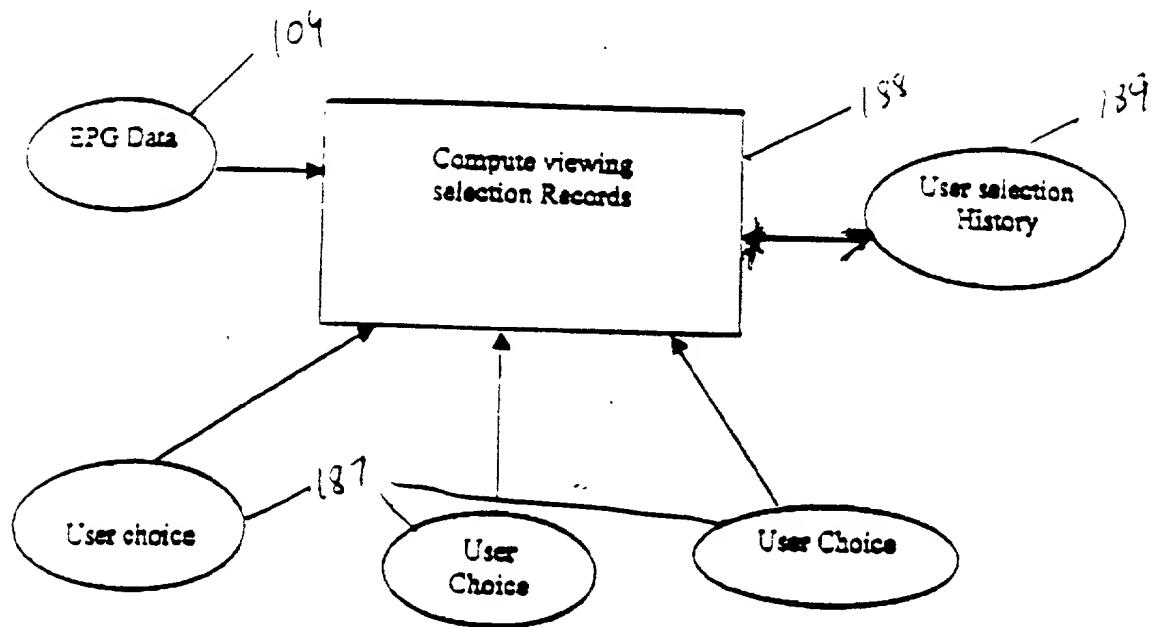


Figure 15

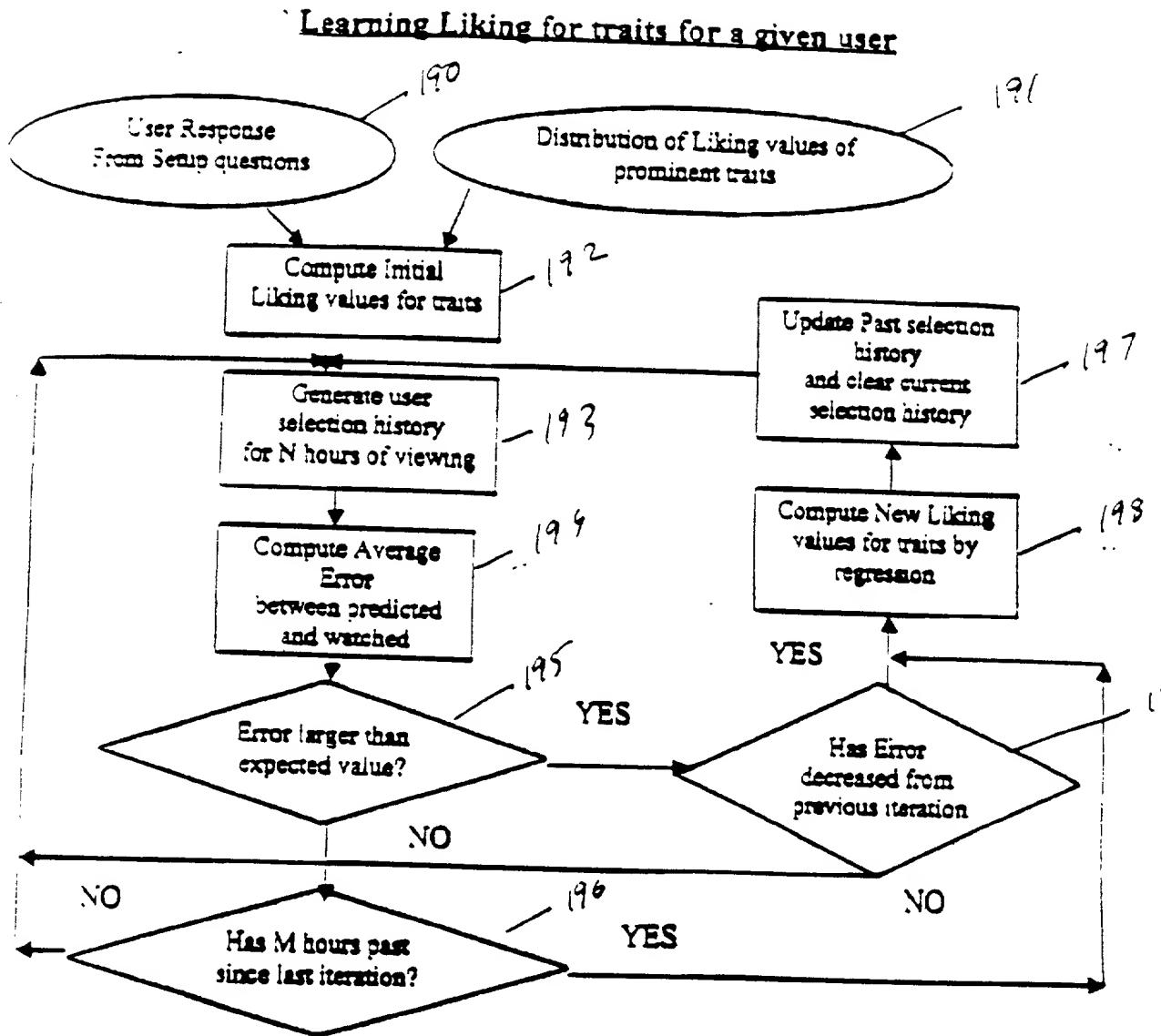


Figure 16

Computing Relevance

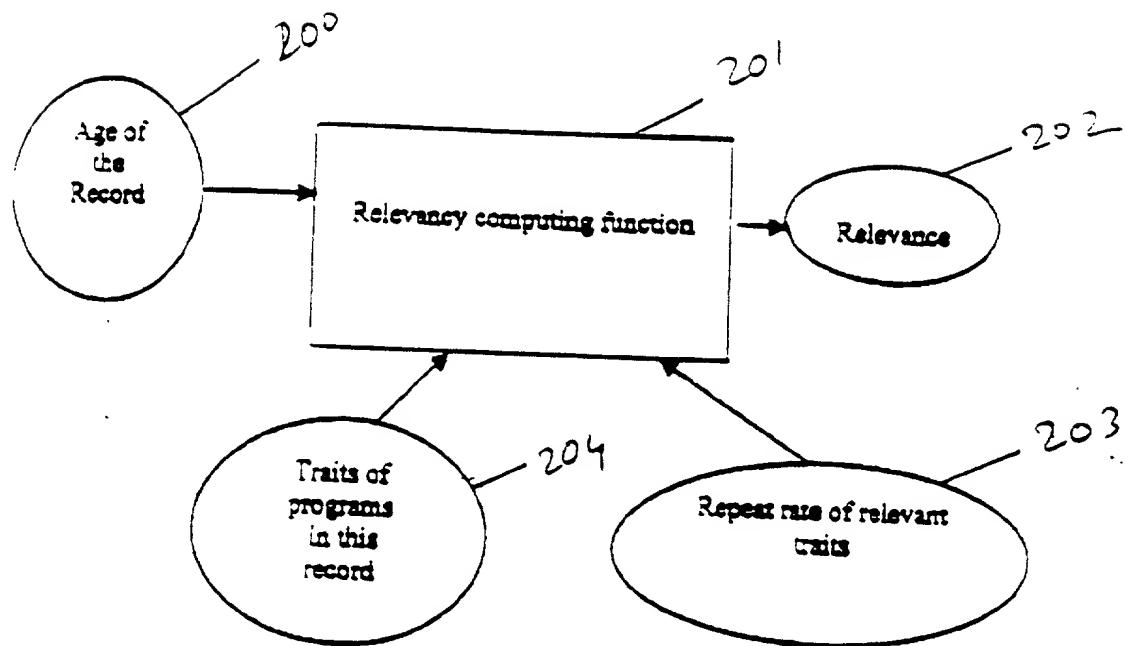


Figure 17 (a)

Figure 17(b)

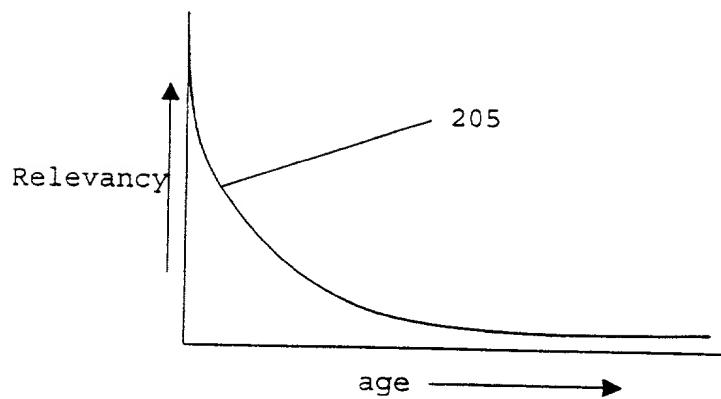
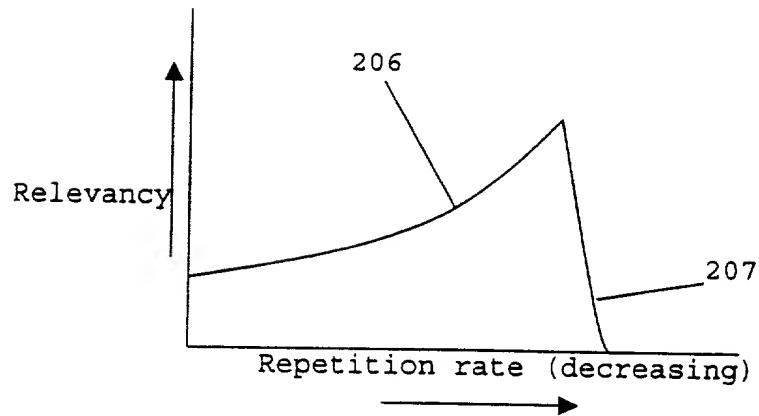


Figure 17(c)



Updation of past History

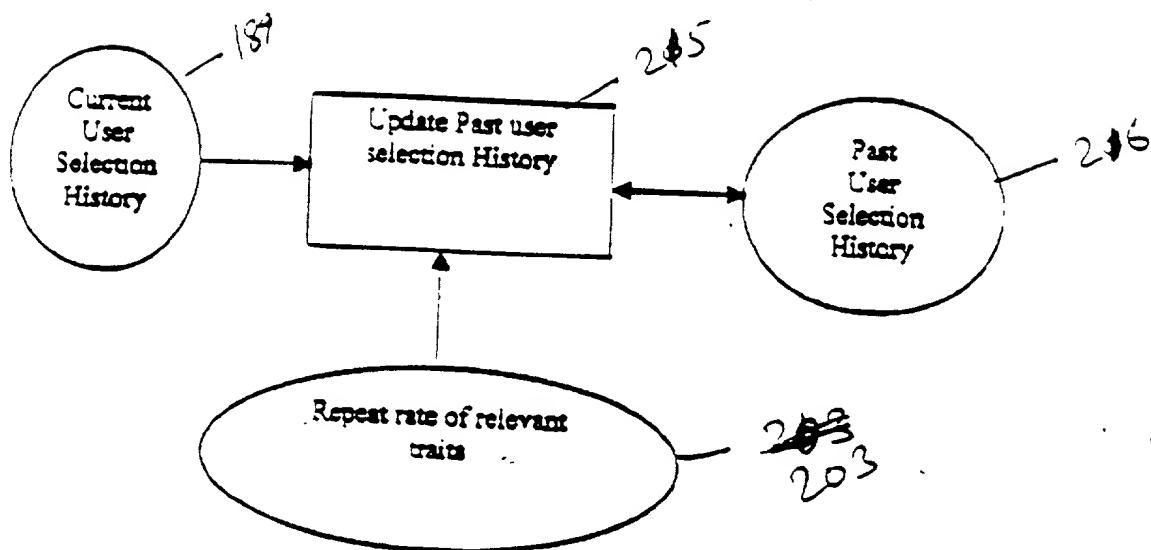


Figure 18(a)

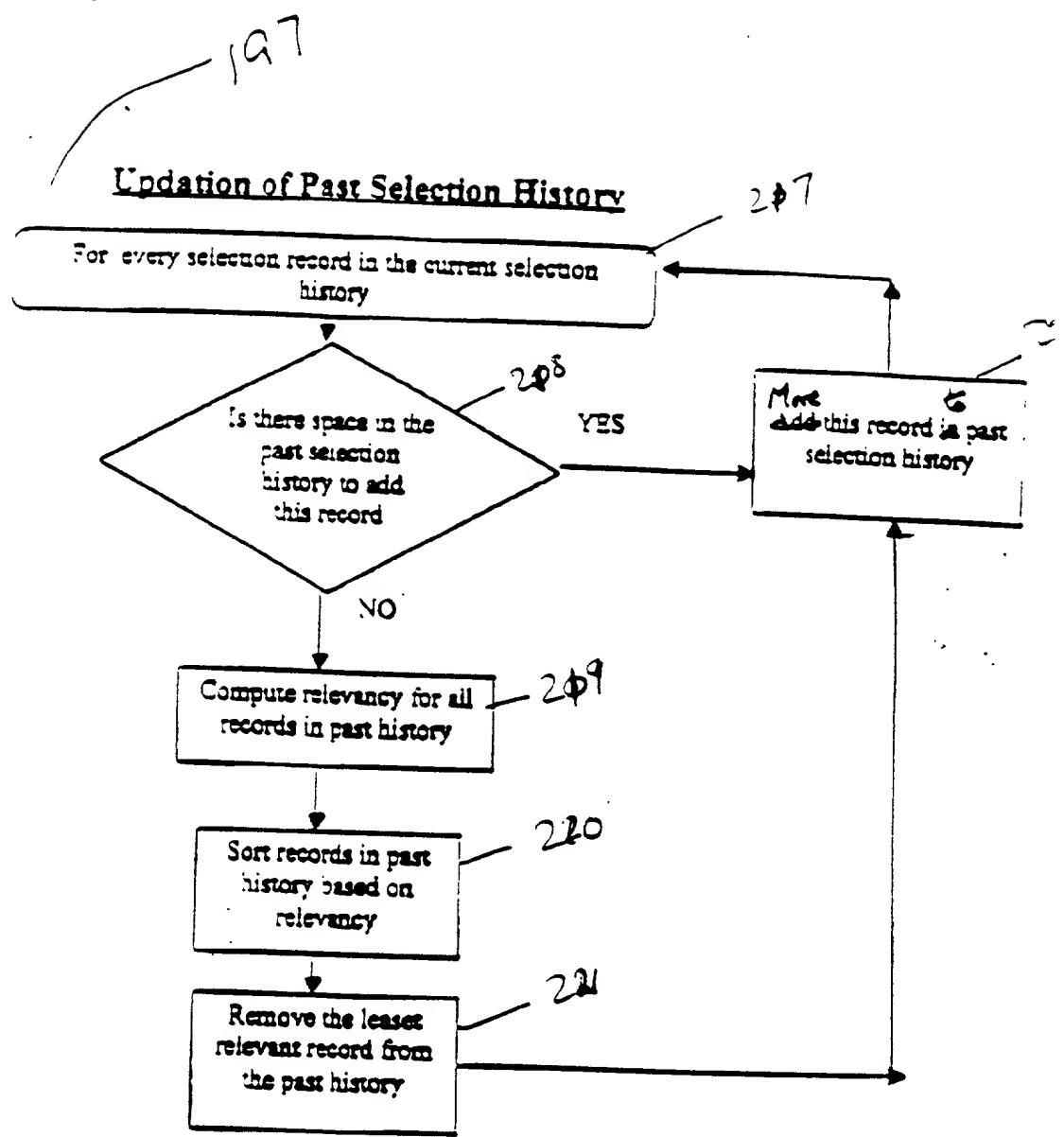


Figure 18(b)

Computing liking on clientside

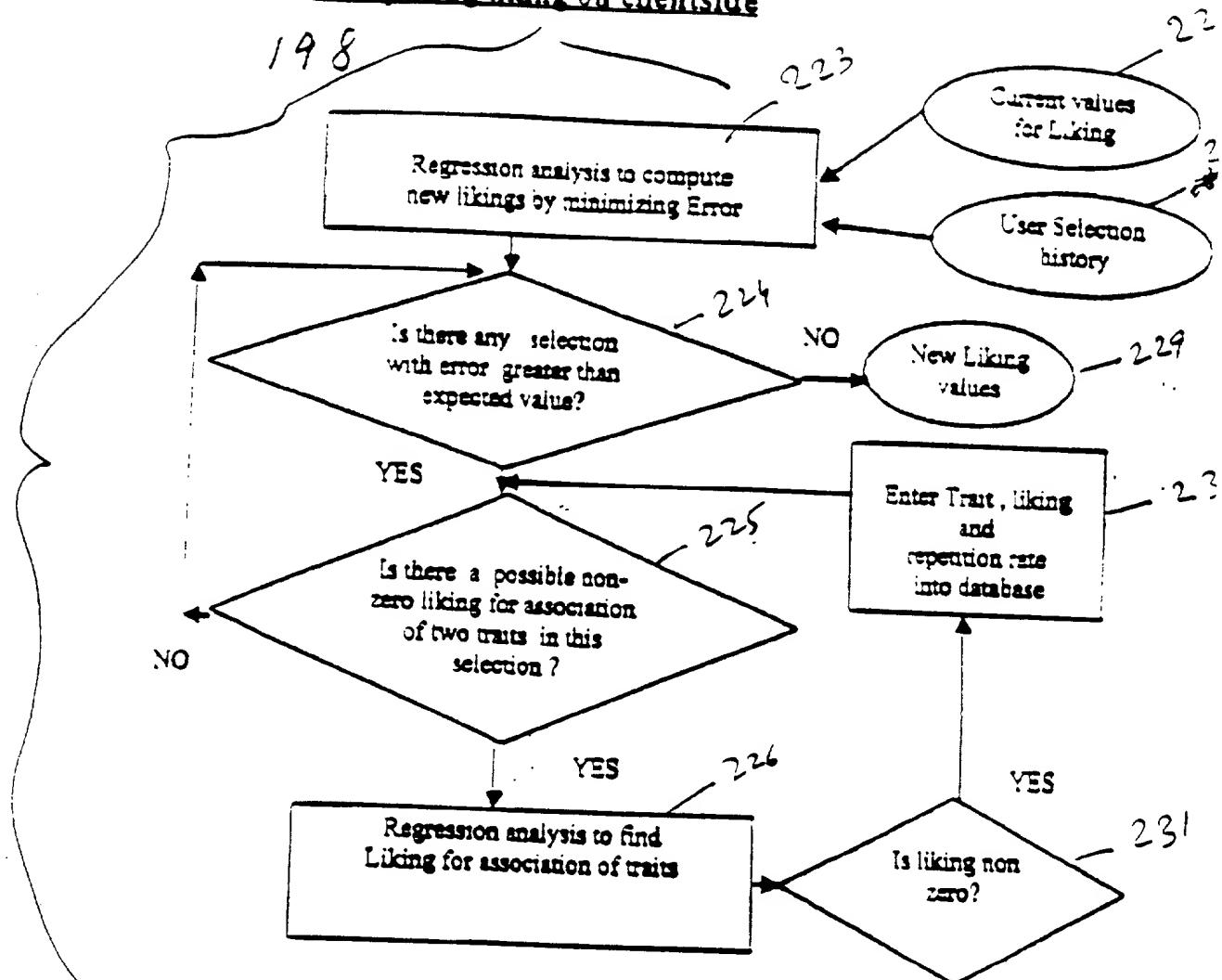


Figure 19

Computing scores for programs for future prediction

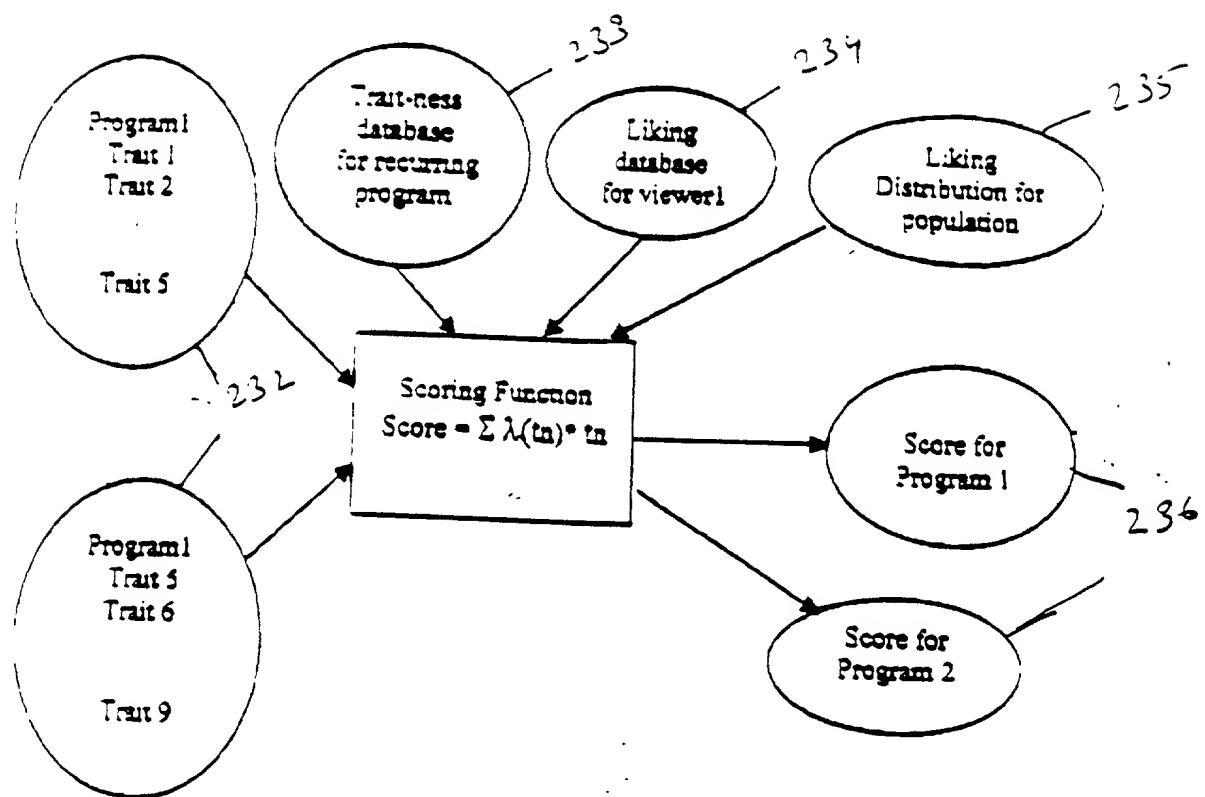
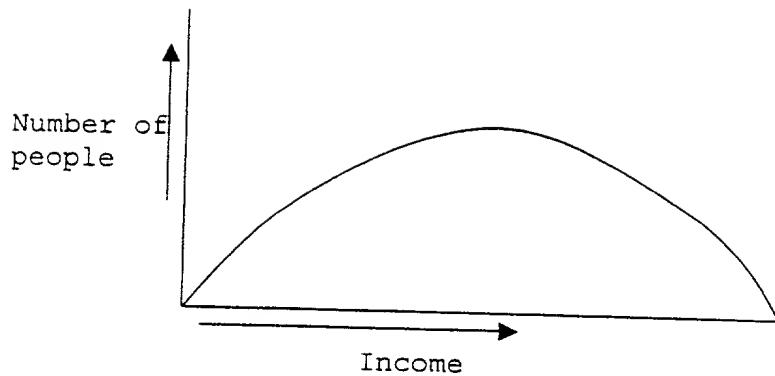
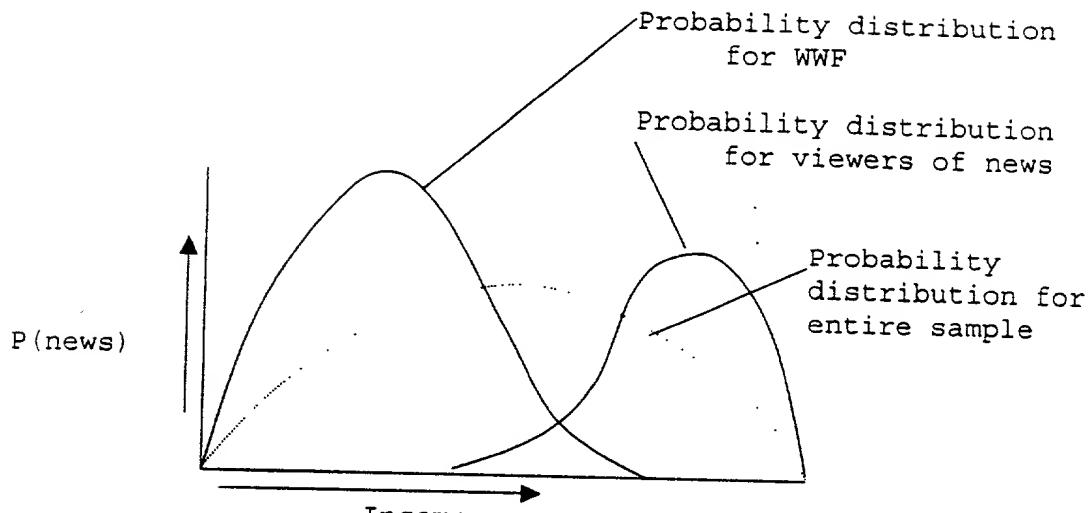


Figure 20

Figure 21(a)



(i)



(ii)

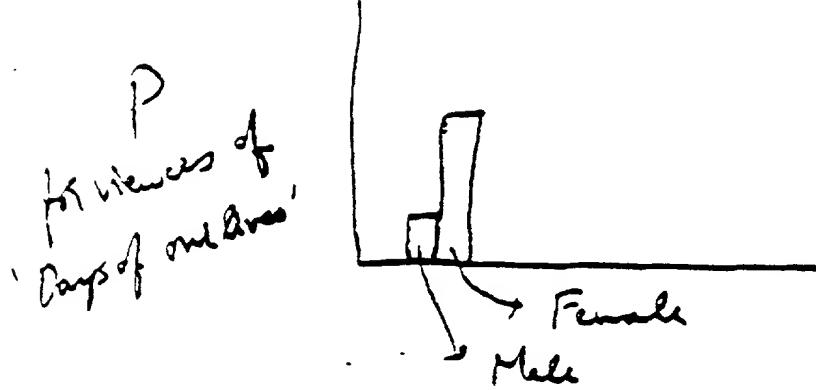
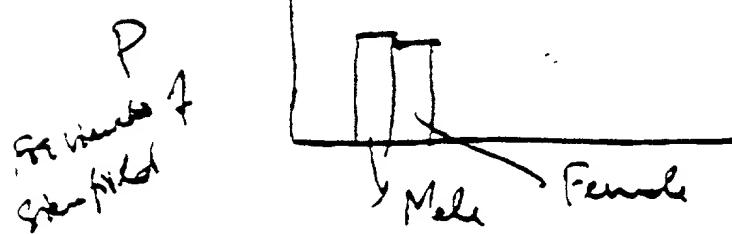
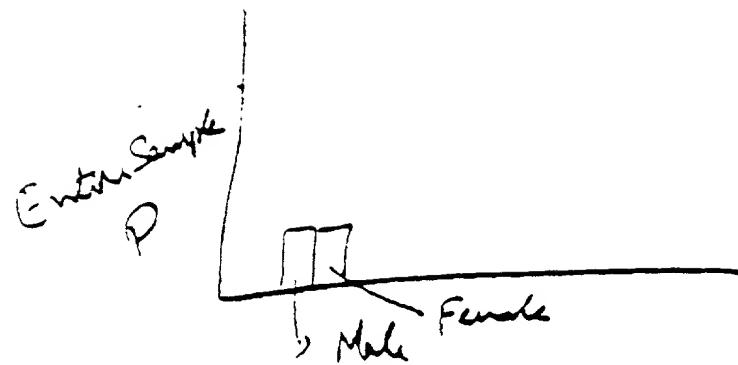


FIGURE 21b

System Architecture

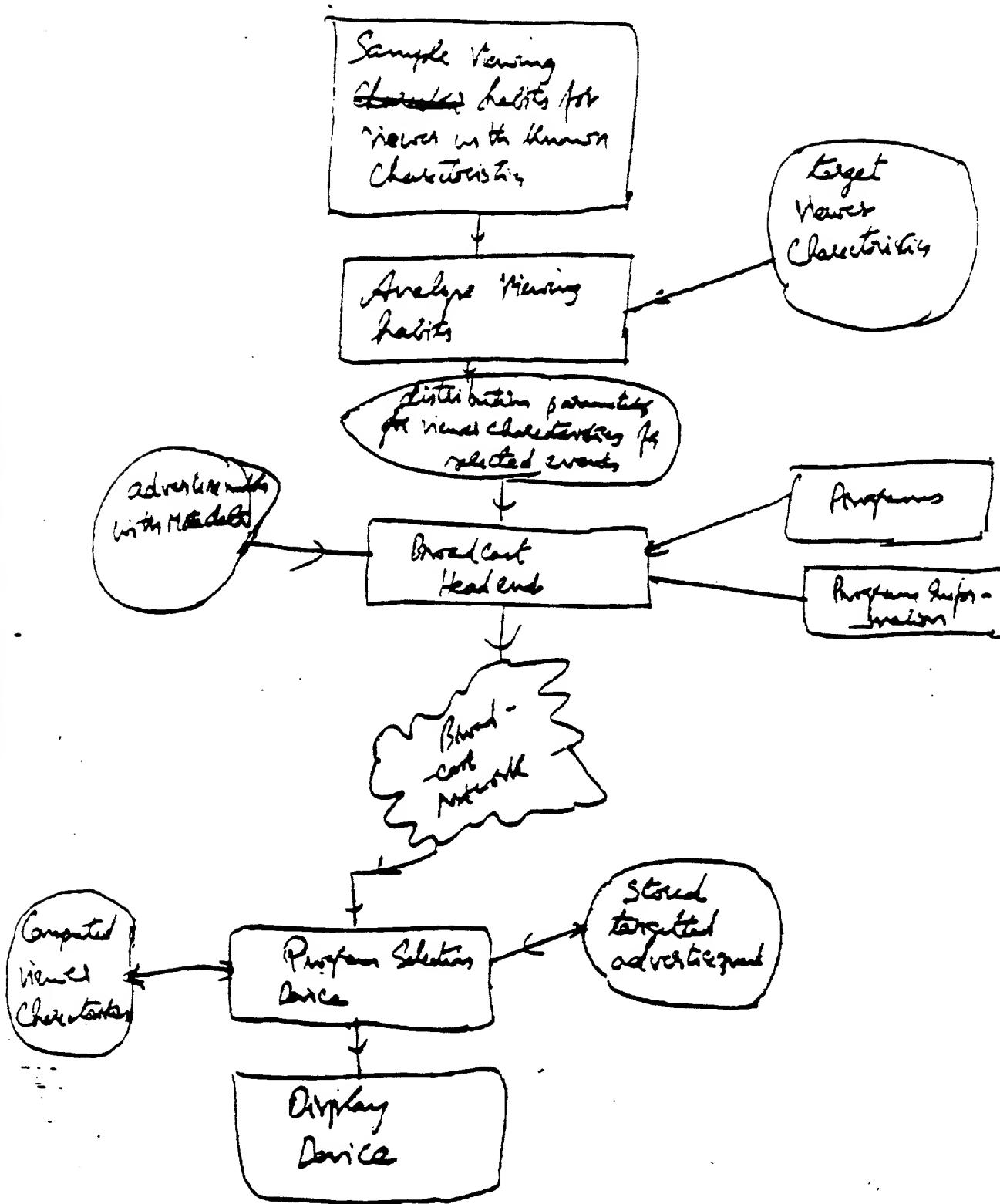


Figure 22

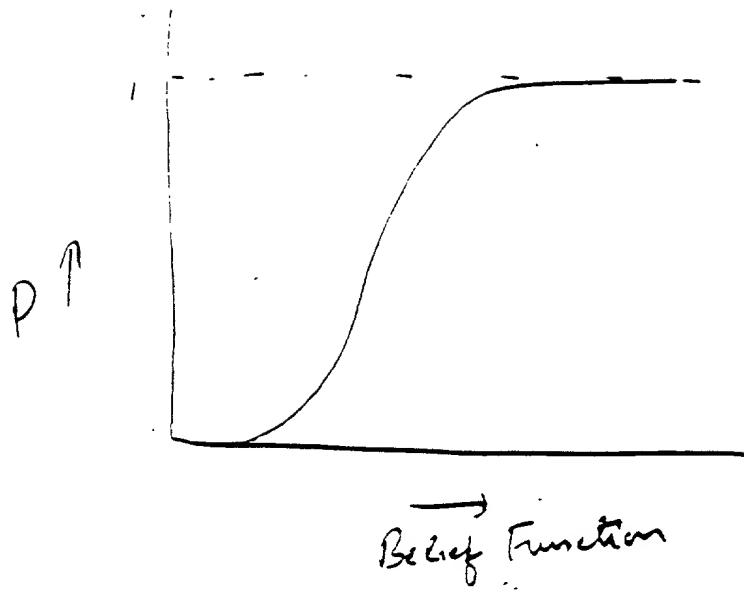


Figure 23^a

Demographic Trait Record format

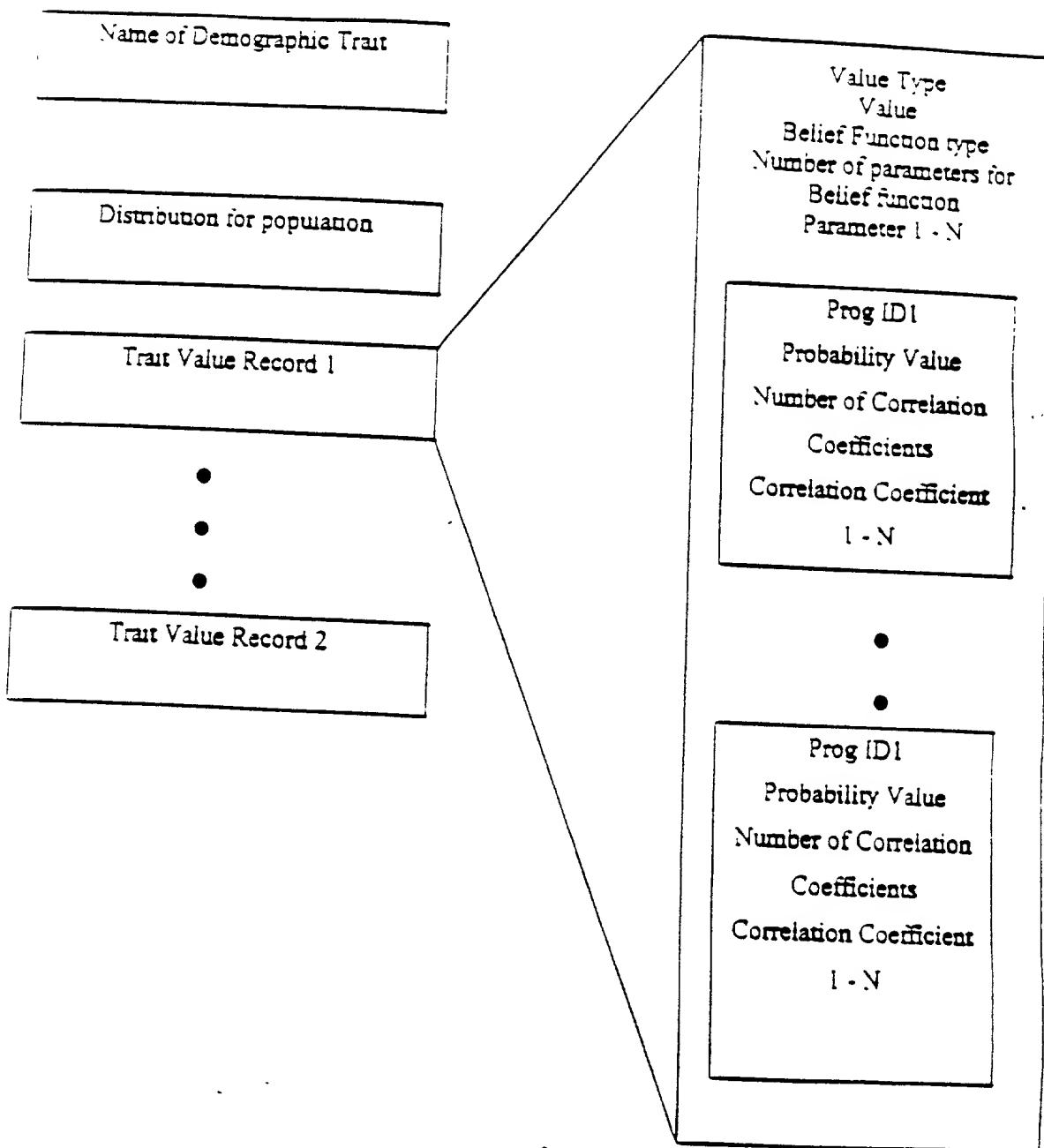


Figure 23b

Advertisement Targeting Record format

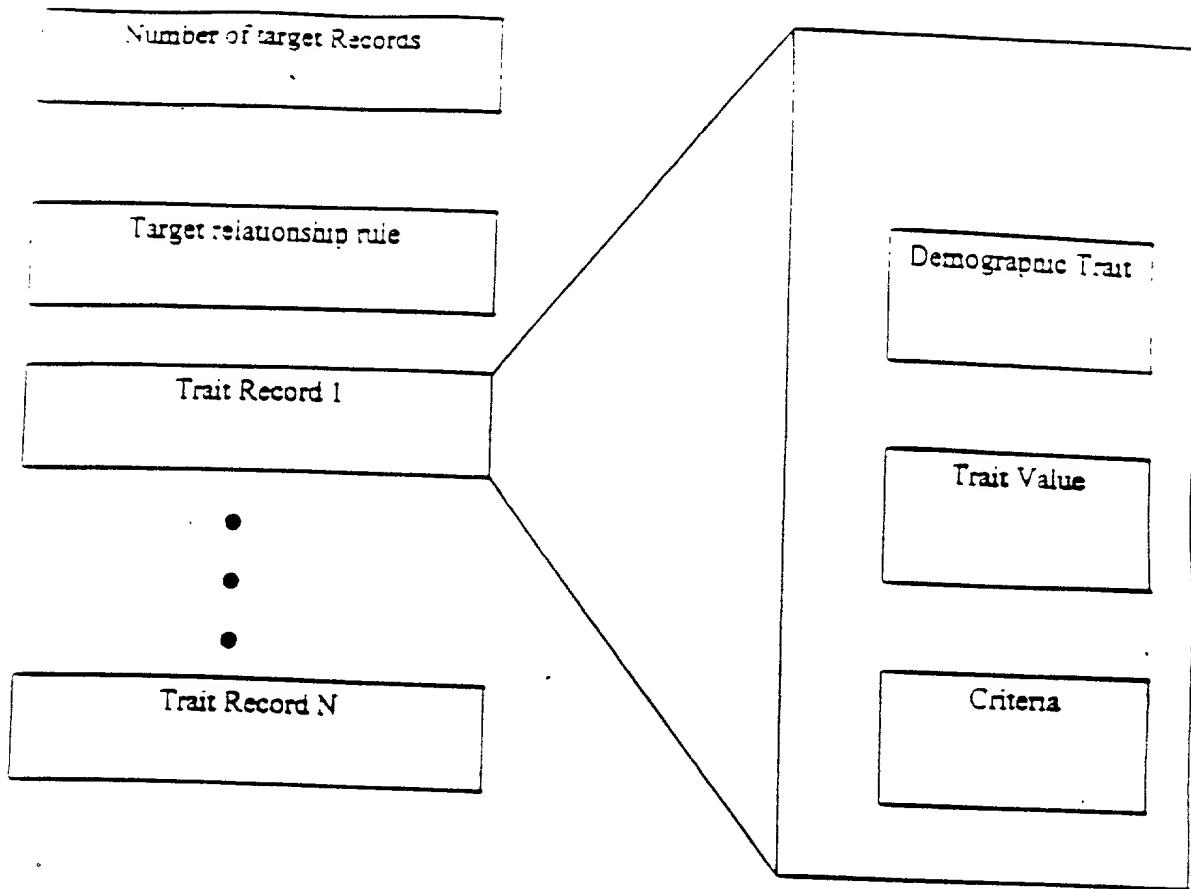


Figure 23C

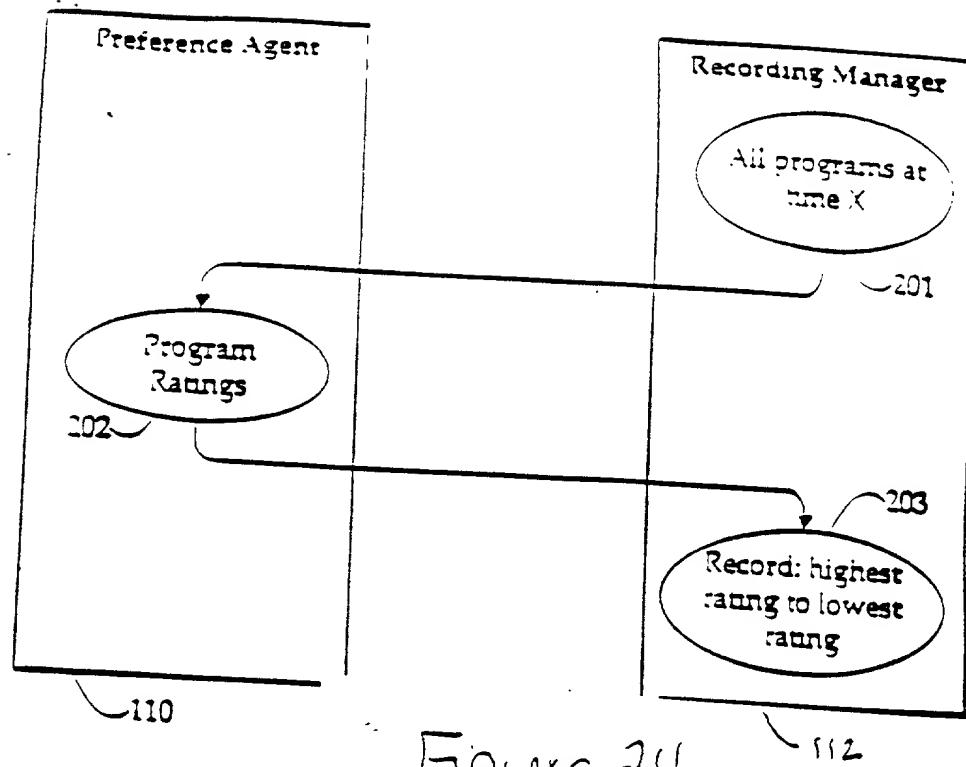


Figure 24

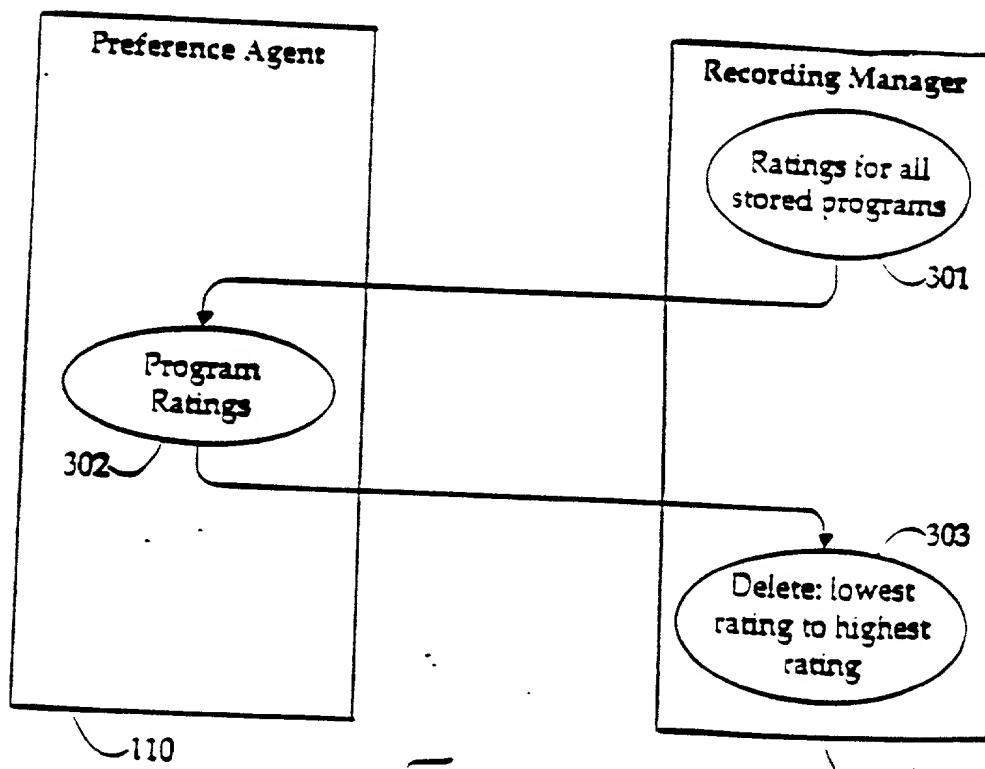


Figure 25

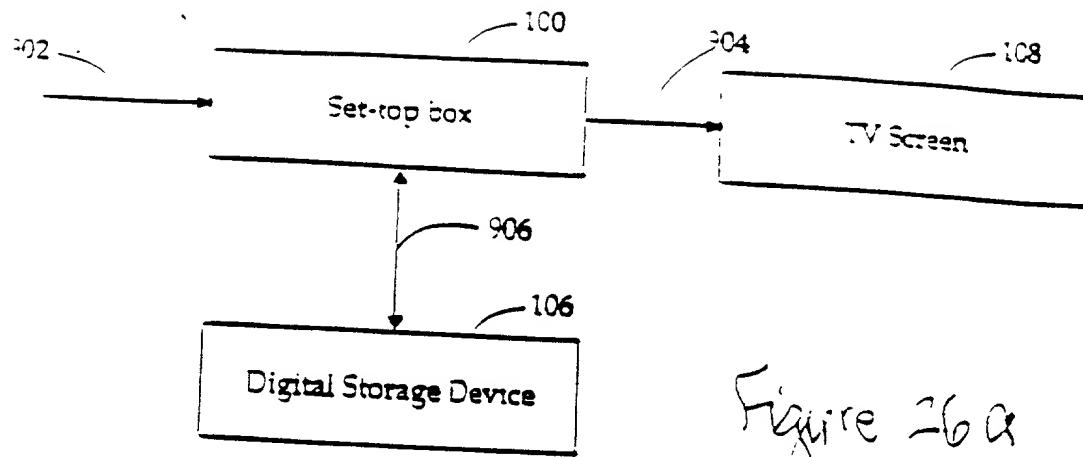


Figure 26a

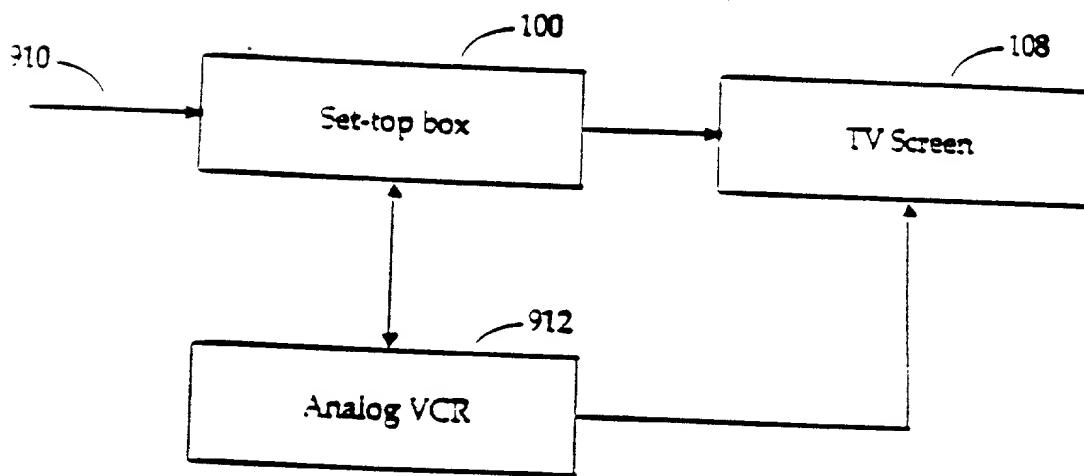


Figure 26b

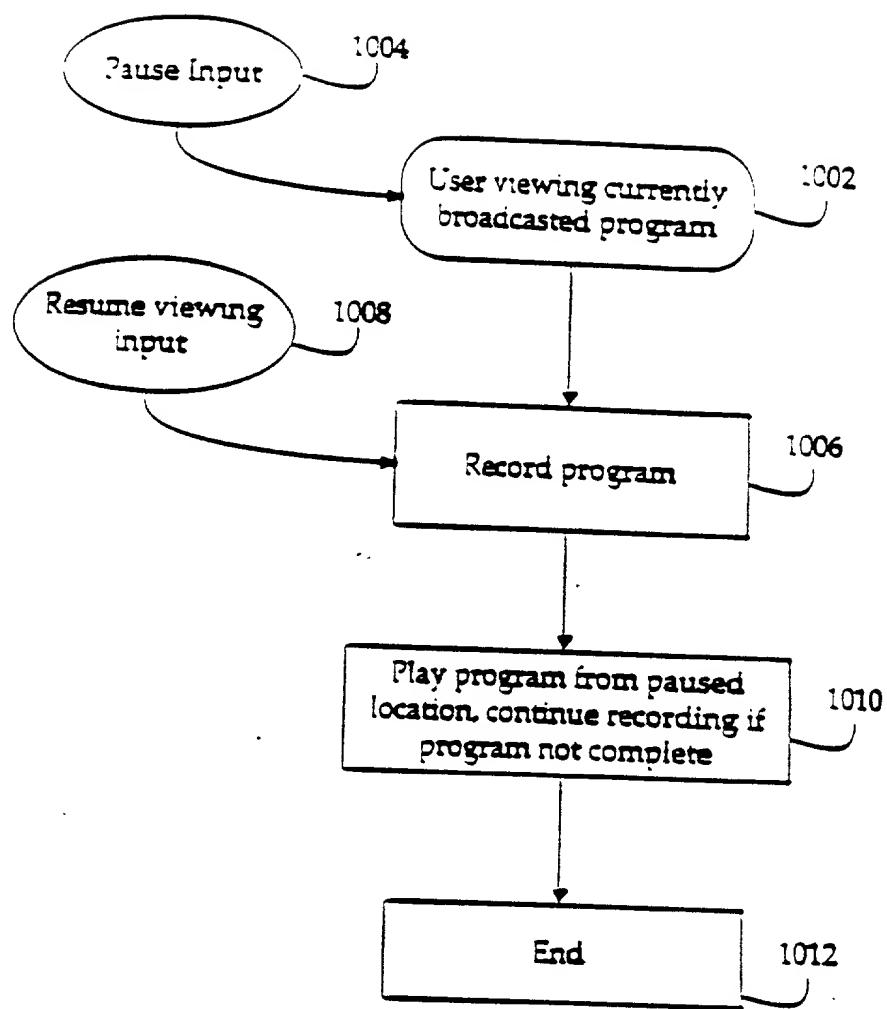


Figure 27

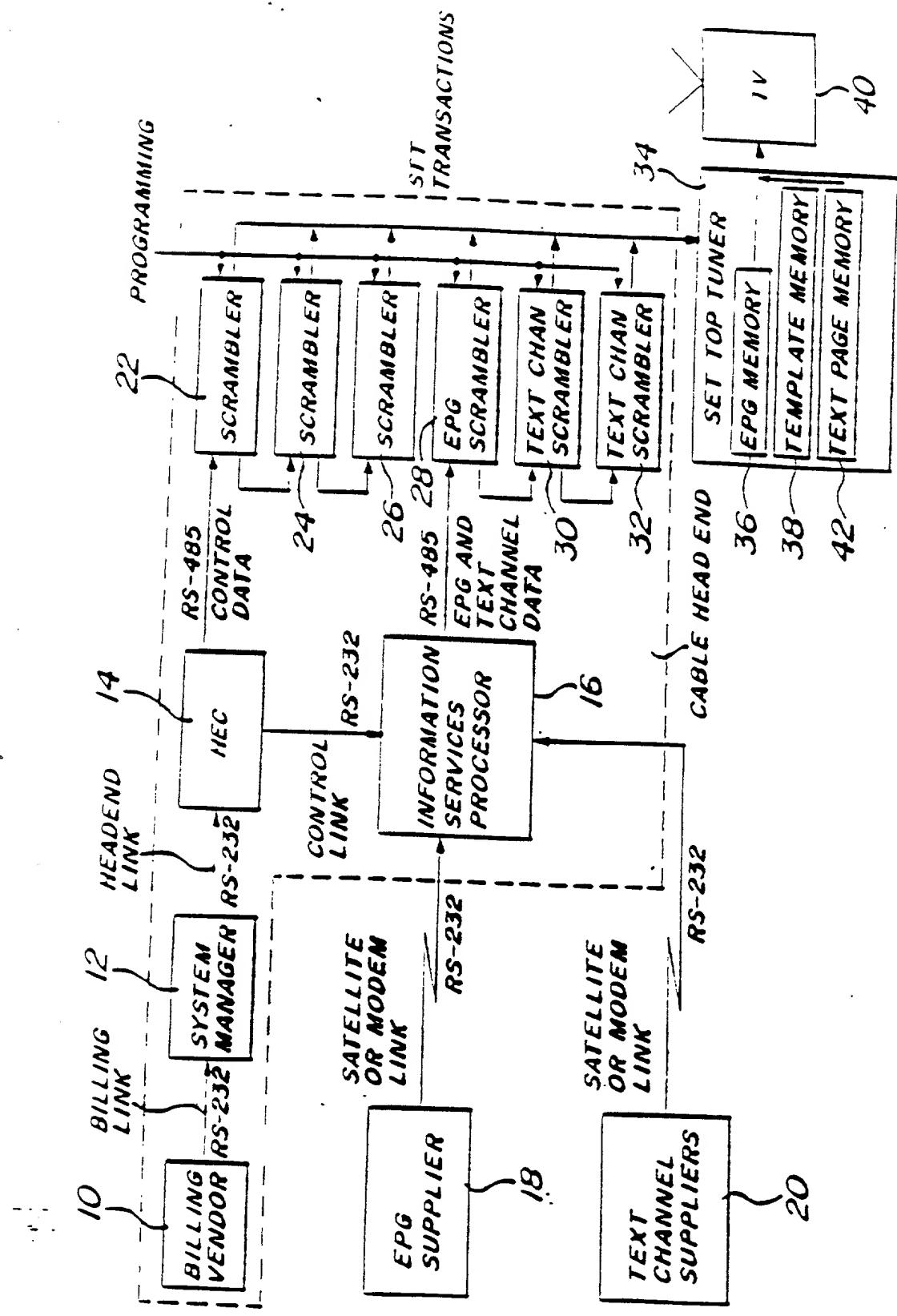
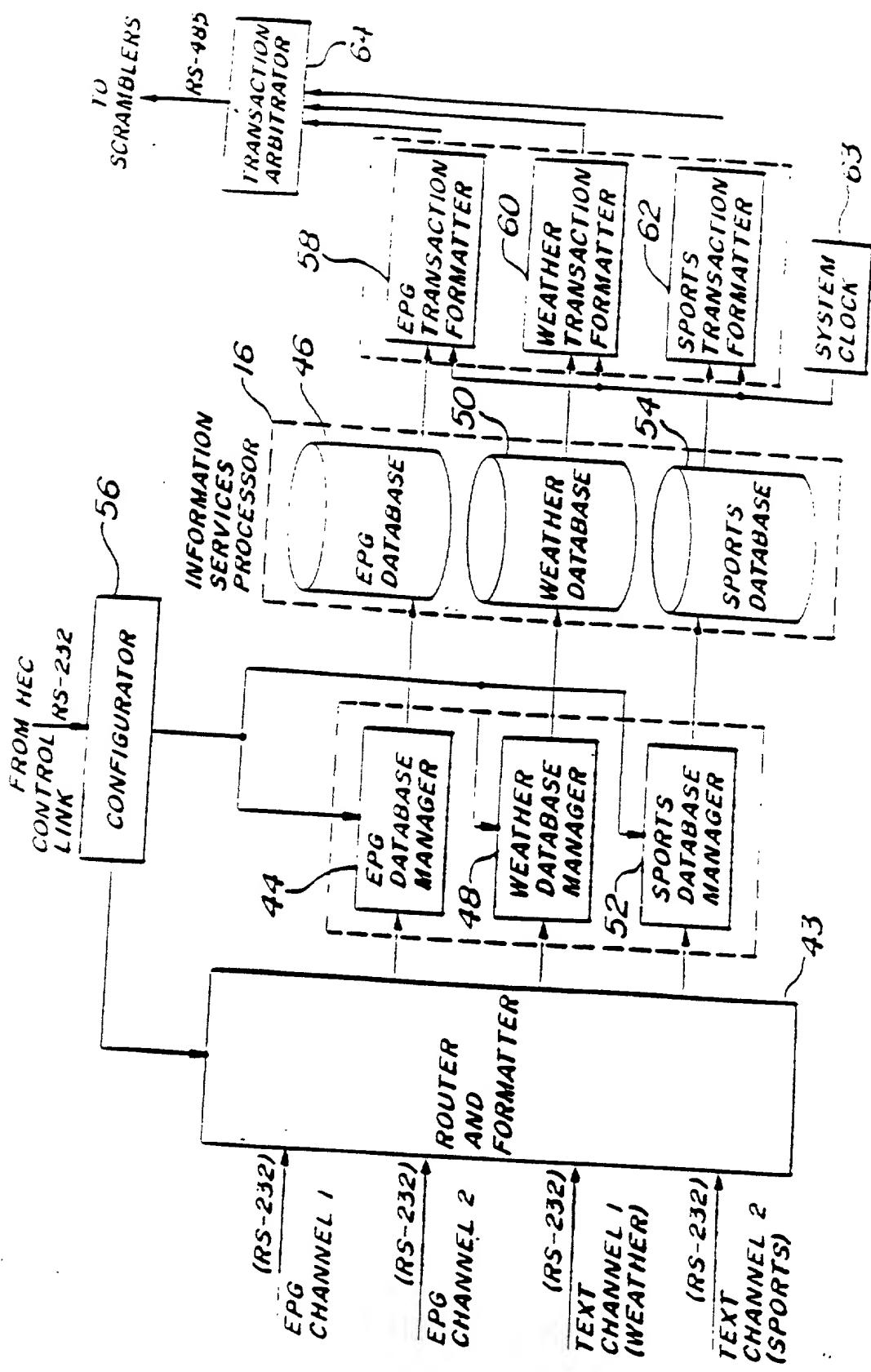


Figure 28

Figure 29



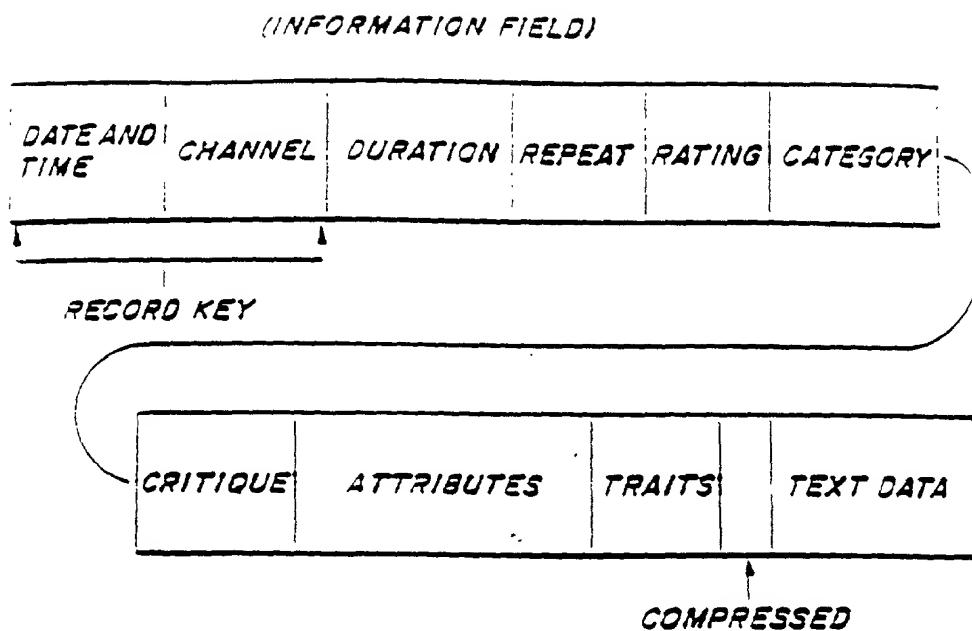


Figure 30

(TO SCRAMBLERS)

BEGINNING FLAG 1 BYTE	STATION ADDRESS 1 BYTE	CONTROL 1 BYTE	INFOR- MATION FIELD n BYTES	FRAME CHECK 2 BYTES	ENDING
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Figure 31

EPG TRANSACTION FORMATTER 58

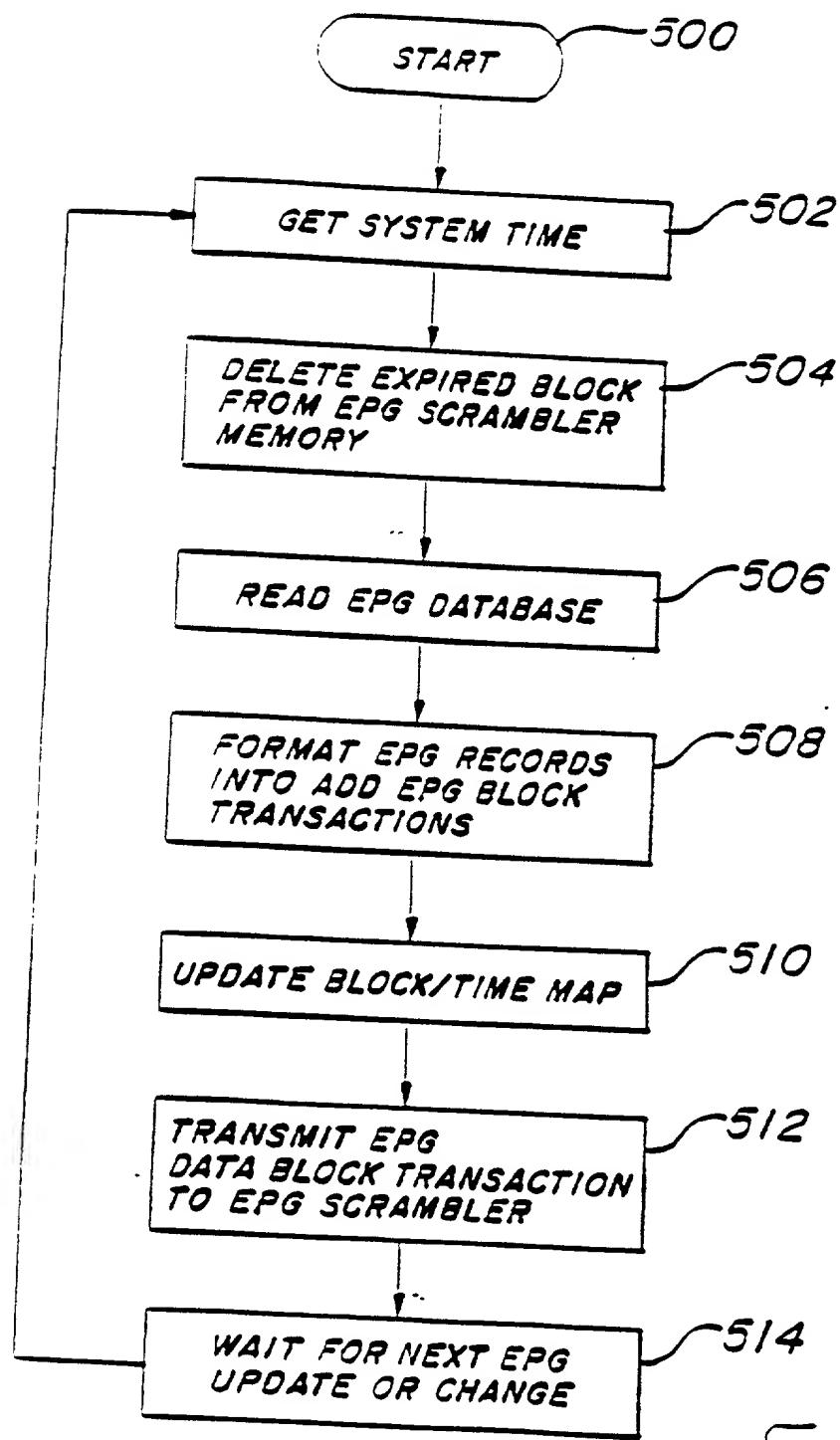


Figure 31

TEXT CHANNEL TRANSACTION FORMATTER 60,62

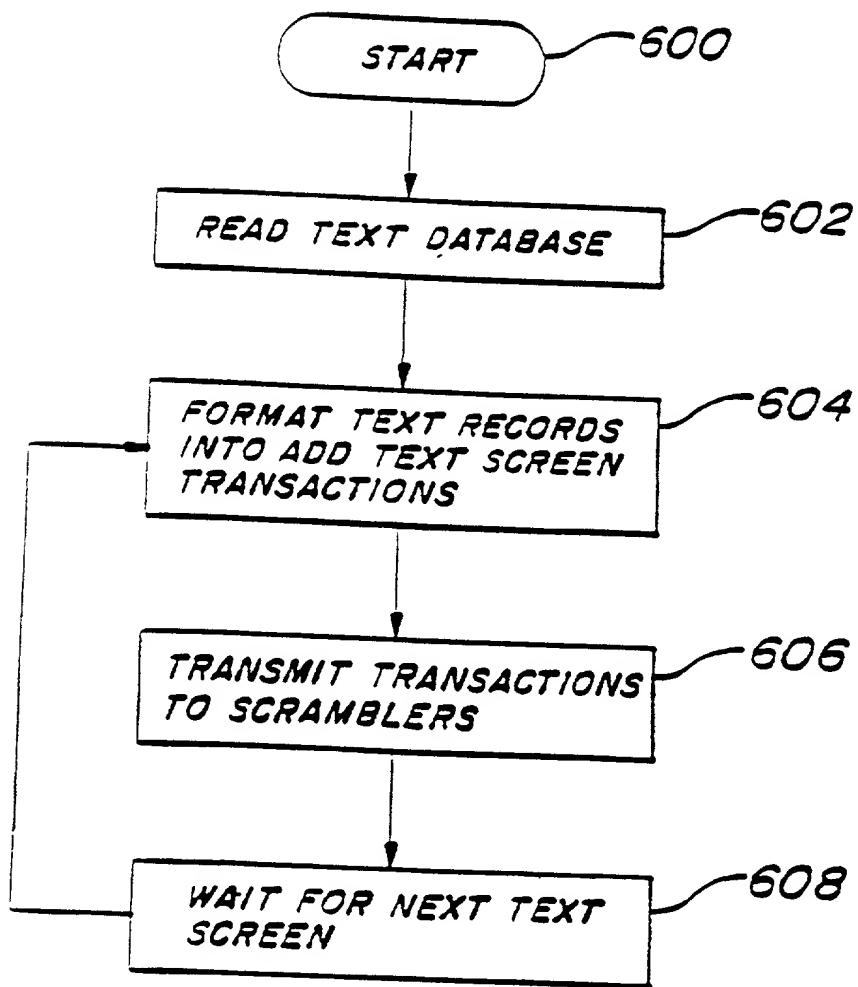


Figure 33

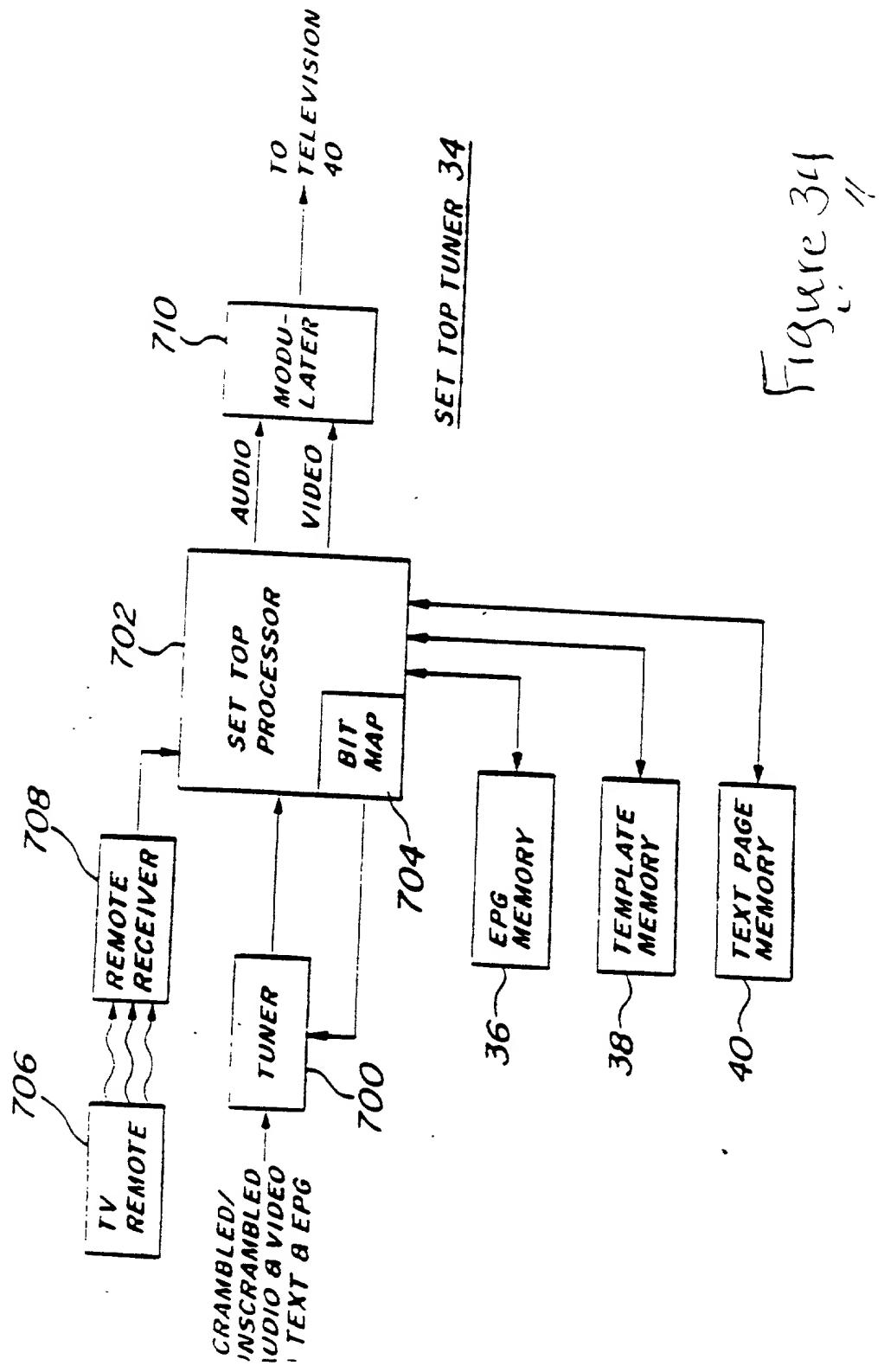


Figure 34
11

Process for automation - creating multiple profiles and automatically detecting current active profiles

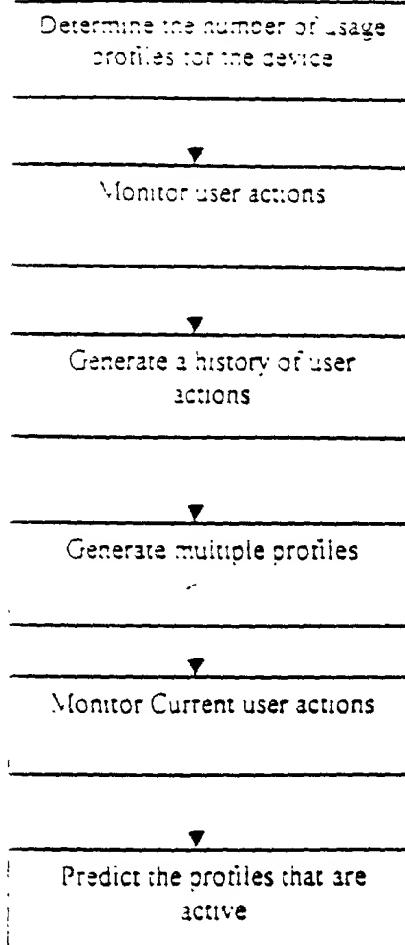


Figure 15

CIRCULAR PROGRAM GUIDE

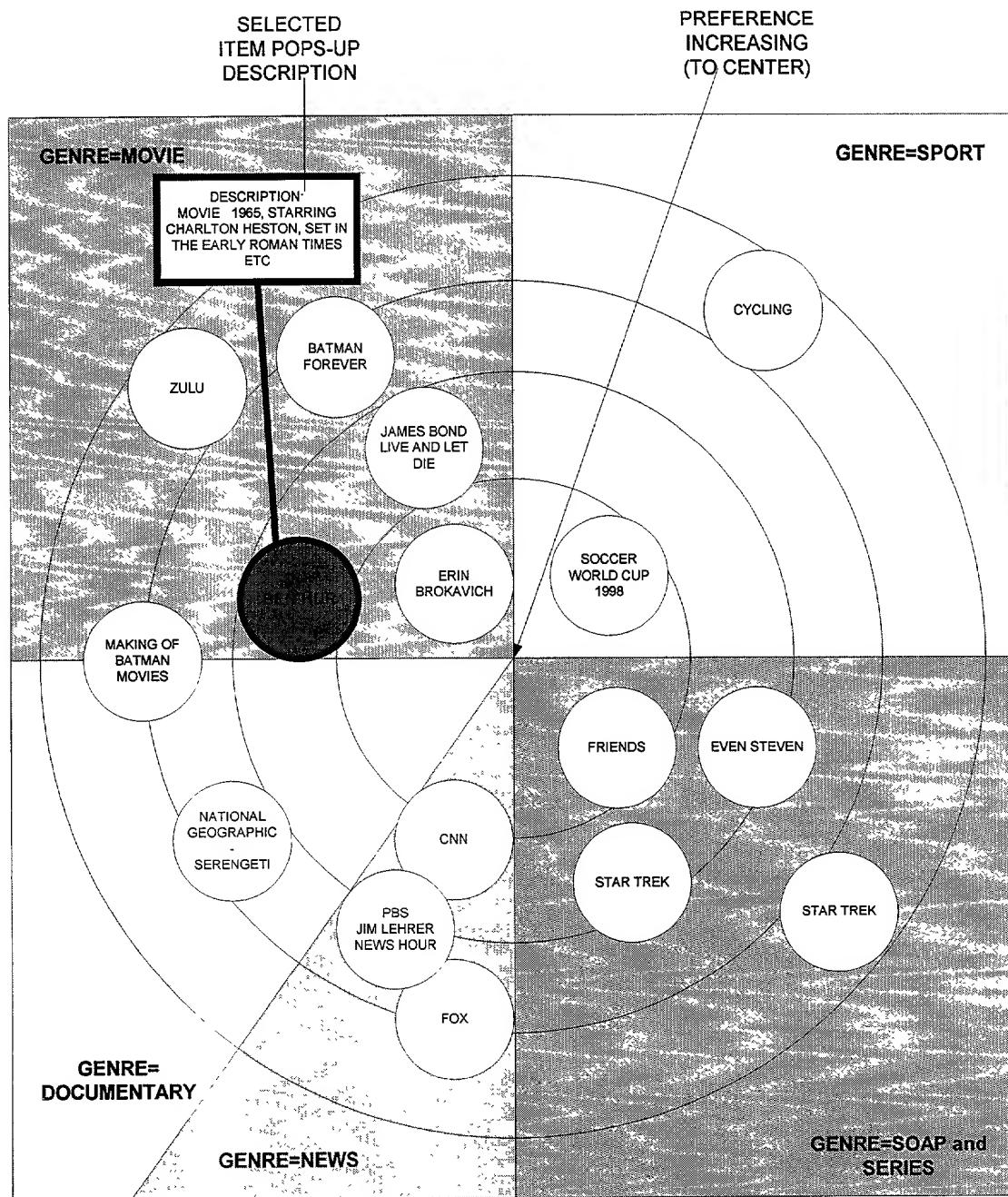


Figure 36